MFJ 2002 Ham Catalog

MFJ *No Matter What*™ Warranty ***Your MFJ product comes with MFJ's famous No Matter What™ one year limited warranty. MFJ will repair or replace your MFJ products (at our option)*** **no matter what** ***for a full year.***

FREE Instruction Manuals ***on most MFJ products. Visit our web site or write or call 800-647-1800.***

MFJ *Pocket size* Morse Code Reader™

Hold near your receiver -- it instantly displays CW in English!

Automatic Speed Tracking . . . Instant Replay . . . 32 Character LCD . . . High-Performance Modem . . . Computer Interface . . . Battery Saver . . .

Is your CW rusty? ***Relax and place this tiny pocket size MFJ Morse Code Reader near your receiver's speaker . . .***

MFJ-461
$79.95
Ship Code A

Then watch CW turn into solid text messages as they scroll across an easy-to-read LCD display.

No cables to hook-up, no computer, no interface, nothing else needed!

Use it as a backup in case you miscopy a few characters - - it makes working high speed CW a breeze - - even if you're rusty.

Practice by copying along with the MFJ-461. It'll help you learn the code and increase your speed as you instantly see if you're right or wrong.

Eavesdrop on interesting Morse code QSOs from hams all over the world. It's a universal language that's understood the world over.

Automatic Speed Tracking

MFJ *AutoTrak*™ automatically locks on, tracks and displays CW speed up to 99 Words-Per-Minute.

Simply place your MFJ-461 close to your receiver speaker until the lock LED flashes in time with the CW.

Four Display Modes

1. Bottom line scrolls and fills with text, then that entire line is displayed on top line until bottom line refills -- makes reading text extra easy! Automatically displays speed in WPM.

2. Same as **1**, without speed display -- gives you maximum text display.

3. Top line scrolls, bottom line displays speed in Words-Per-Minute.

4. Both top and bottom lines scroll.

Two-line LCD display has 32 large 1/4 inch high-contrast characters.

MFJ Instant Replay

The last 140 characters can be instantly replayed. Lets you re-read or check copy if you're copying along side the MFJ-461.

High Performance Modem

Consistently get solid copy from MFJ's high performance *PLL* (*phaselock loop*) modem. Digs out weak signals. Even tracks slightly drifting signals.

Of course, nothing can clean up and copy a sloppy fist, especially weak signals with lots of QRM/QRN.

Computer Interface

The MFJ-461's serial port lets you display CW text full screen on a bright computer monitor -- just use your computer serial port and terminal program.

More Features

When it's too noisy for its mic pickup, connect MFJ-461 to your radio with a cable.

Battery saving feature puts MFJ-461 to sleep during periods of inactivity. It wakes up and decodes when it hears CW.

Uses 9 Volt battery (not included).

True Pocket Size

Fits in your shirt pocket with room to spare - smaller than a pack of cigarettes. Tiny $2^{1}/_{4}$x$3^{1}/_{4}$x1 in. $5^{1}/_{2}$ ounces.

Accessories

MFJ-26B, $6.95. Soft leather protective pouch. Clear plastic overlay for display, push button opening, strong, pocket/belt clip secures MFJ-461.

MFJ-5161, $14.95. MFJ-461 to computer serial port cable (DB-9).

MFJ-5162, $5.95. Connects MFJ-461 to radio's external speaker 3.5 mm jack.

Celebrating our 30th Year Anniversary 1972-2002

For your nearest dealer or to order call 800-647-1800

MFJ ENTERPRISES, INC., P.O. Box 494, Mississippi State, MS 39762

Voice: (662) 323-5869; 8-4:30 CST, Mon-Fri.; **FAX:** (662) 323-6551; **E-Mail:** *mfj@mfjenterprises.com*; **Add s/h.**

Visit our web site . . . http://www.mfjenterprises.com

1.8-170 MHz *plus* 415-470 MHz

New! *HF/VHF/UHF SWR Analyzer*

Covers 1.8-170 MHz and 415-470 MHz . . . SWR . . . Complex RF Impedance: Resistance(R) and Reactance(X) or Magnitude(Z) and Phase(degrees) . . . Coax cable loss(dB) . . . Coax cable length and Distance to fault . . . Return Loss . . . Reflection Coefficient . . . Inductance . . . Capacitance . . . Battery Voltage. LCD digital readout . . . frequency counter . . . side-by-side meters . . . Ni-MH/ Ni-Cad charger circuit . . . battery saver . . . low battery warning . . . smooth reduction drive . . .

NEW MFJ-269 **$359.95** Ship Code A

MFJ-269 covers 1.8 to 170 MHz *and* 415 to 470 MHz ***-- an MFJ-269 exclusive!*** It includes all the features of the MFJ-259B, *the world's most popular SWR Analyzer* plus much more!

Large easy-to-read two line LCD display and side-by-side meters clearly display your information.

Built-in Ni-Cad/Ni-MH charger circuit, battery saver, low battery warning, smooth reduction drive tuning. Use as signal source for testing/alignment.

Built-in *CoaxCalculator*™ -- calculates coax line length in feet given coax length in electrical degrees and vice versa for any frequency and any velocity factor (great for building matching sections and phasing lines) ***-- an MFJ-269 exclusive!***

New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters ***-- an MFJ-269 exclusive!***

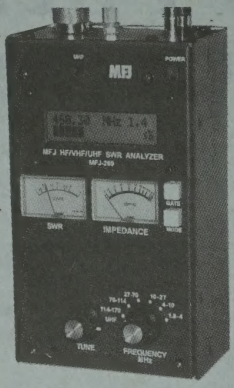
Super easy to use! Just set the bandswitch and tune the dial -- just like your transceiver.

1.8 to 170 MHz Range Features

MFJ-269 gives you a complete picture of your antenna. Read antenna SWR and Complex Imped-ance 1.8 to 170 MHz. Built-in frequency counter.

Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp) ***-- an MFJ-269 exclusive!***

You can determine velocity factor, coax loss in dB, length of coax and distance to short or open in feet.



You can read SWR, return loss and reflection coefficient at any frequency simultaneously at a single glance. Also reads match efficiency.

Also read inductance in uH and capacitance in pF at RF frequencies.

You can measure SWR and loss of coax with *any* characteristic impedance from 10 to over 600 Ohms, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450 Ohms ***-- an MFJ-269 exclusive!*** **For** more information see MFJ-259B, page 3.

New 415 to 470 MHz Range features

Just plug in your UHF antenna coax, set the frequency and read SWR, return loss and reflection coefficient simultaneously. You can read coax cable loss in dB and match efficiency.

You can adjust UHF dipoles, verticals, yagis, quads and other antennas and determine their SWR, resonant frequency and bandwidth.

You can test and tune stubs and coax lines. You can manually determine velocity factor and impedances of transmission lines.

Adjust and test RF matching networks and RF amplifiers without applying power.

Has easy-to-read LCD *logarithmic* SWR bargraph and SWR meter for quick tuning.

Take it anywhere

Fully portable, take it anywhere -- remote sites, up towers, on DX-peditions. Built-in "N" connector. *Free* N-to-SO-239 adaptor. Use 10 AA Ni-MH (See page 56) or Ni-Cad or alkaline batteries (not incl.) or 110VAC with MFJ-1315, $14.95. 4Wx2Dx6¾H inches.

MFJ-269 SWR Analyzer Accessories

MFJ-39, $24.95. Tote your MFJ-269 anywhere with this *genuine* MFJ custom carrying case. Has back pocket with security cover for carrying dip coils, adaptors and accessories. Made of special foam-filled fabric, the MFJ-39 cushions blows, deflects scrapes, and protects knobs, meters and displays from harm.

Wear it around your waist, over your shoulder, or clip it onto the tower while you work -- the fully-adjustable webbed-fabric carrying strap has snap hooks on both ends.

Has clear protective window for frequency display and cutouts for knobs and connectors -- use your MFJ *SWR Analyzer*™ without ever taking it out of your case. *Authentic MFJ leather logo distinguishes the real thing from imitators!*

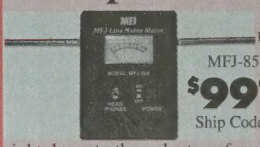
MFJ-269 SWR Analyzer Accessories

New!* MFJ-99C, $34.95.** *SWR Analyzer Power Pack.* 10 Pack MFJ *SuperCell*™ Ni-MH batteries, and MFJ-1315 Power supply for MFJ-259B/MFJ-269 SWR analyzers. ***Save $5!

New!* MFJ-98, $54.85.** *MFJ-269 Accessory Pack.* Same as MFJ-99 but has MFJ-39 *custom* Carrying Pouch for MFJ-269. With power supply, dip coils. ***Save $5!

New!* MFJ-98B, $77.85.** *MFJ-269* complete accessory pack! Pouch, batteries, dip coils, power supply. ***Save $7!

Find *power line noise* fast!



MFJ-852 **$99.95** Ship Code A

This MFJ handheld power line noise meter lets you walk or drive around the neighborhood to search out leaky insulators, loose hardware and corroded ground lines quickly. You can track the noise source right down to the pole, transformer or insulator, or other source.

This sensitive superhet AM receiver has a noise field strength meter. A telescopic, direction-finding dipole antenna is balun isolated and optimized to give you a sharp, clearly defined null.

Operates in the 135 MHz region where activity is a minimum and radiation from corona and arcing is far more localized. 0.3 uV sensitivity and wide-range AGC for noise level meter -- *over 70 dB!*

Plug in headphones and hear the noise you're tracking or plug-in a tape recorder. With your tape, your power company may figure out what's causing the noise and know how to fix the problem before they even come out. They are more likely to cooperate if you have the proof. 2Wx4Hx1.5D inches. Use 9 Volt battery.

MFJ *pocket-sized* RFI Detector

MFJ-805 **$79.95** Ship Code A

Use this ultra-sensitive pocket-sized RFI Detector to track down and eliminate RFI caused by radiating cables and wires. It'll tell you exactly which cable is radiating RFI so you can eliminate it with a simple toroid or clamp-on RFI filter. Use it to find RFI generated by consumer devices, computers and high-tech office equipment. When you eliminate the RFI source, hash, birdies, whistles and transient noise miraculously disappear from your communications receiver.

MFJ-805 also works with mobile installations, ferreting out alternator hash, ignition pulses and microprocessor noise on feedlines and power leads. Your MFJ Detector isolates cables *picking up* RFI and indicates when you've suppressed the problem.

Easy-to-use. Simply clamp current transformer over suspected cable or wire (up to ¼ in. diameter) to detect RFI causing common-mode currents. Super compact 2¼Wx4¾Hx1D inches fits in your shirt pocket. Use 9 Volt battery. Usable from VLF to VHF. Gain adjustable over 50 dB range.

MFJ 1.8-170 MHz SWR Analyzer™

Reads complex impedance . . . Super easy-to-use

MFJ-259B reads SWR . . . Complex RF Impedance: Resistance (R) and Reactance (X) or Magnitude (Z) and Phase (degrees) . . . Coax cable loss (dB) . . . Coax cable length and Distance to fault . . .Return Loss . . . Reflection Coefficient . . . Inductance . . . Capacitance . . . Battery Voltage. LCD digital read-out . . . covers 1.8-170 MHz . . . frequency counter . . . side-by-side meters . . . Ni-Cad/Ni-MH charger circuit . . . battery saver . . . low battery warning . . . smooth reduction drive tuning . . . much more . . .

The world's most popular SWR analyzer just got incredibly better and gives you more value than ever!

MFJ-259B gives you a complete picture of your antenna's performance. You can read antenna SWR and Complex Impedance 1.8 to 170 MHz.

Read Complex Impedance as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

You can determine velocity factor, coax cable loss in dB, length of coax and distance to a short or open in feet.

You can read SWR, return loss and reflection coefficient at any frequency simultaneously at a single glance.

Also read inductance in uH and capacitance in pF at RF frequencies.

Large easy-to-read two line LCD screen and side-by-side meters clearly display your information.

Built-in frequency counter, Ni-Cad charger circuit, battery saver, low battery warning and smooth re-duction drive tuning and much more.

Super easy to use! Just set the bandswitch and tune the dial -- just like your transceiver. SWR and Complex Impedance are displayed instantly!

Here's what you can do

Find your antenna's true resonant frequency. Trim dipoles and verticals.

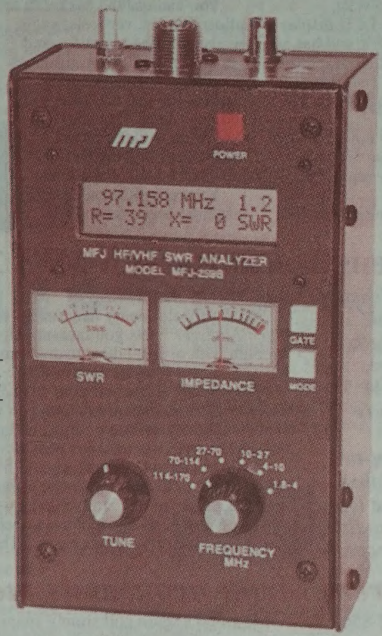
Adjust your Yagi, quad, loop and other antennas, change antenna spacing and height and watch SWR, resistance and reactance change instantly. You'll know exactly what to do by simply watching the display.

Perfectly tune critical HF mobile antennas in seconds for super DX -- without subjecting your transceiver to high SWR.

MFJ-259B

$259.95

Ship Code A



Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance from 1.8 to 170 MHz!

Check SWR outside the ham bands without violating FCC rules.

Take the guesswork out of building and adjusting matching networks and baluns.

Measure distance in feet to a short or open in faulty coax. Measure length of a roll of coax, coax loss, velocity factor, impedance.

Measure inductance and capacitance. Measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.

Adjust your antenna tuner for a perfect 1:1 match without creating QRM.

And this is only the beginning! The MFJ-259B is a complete ham radio test station including -- frequency counter, RF signal generator, *SWR Analyzer*™, RF Resist- ance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter and more!

Take it anywhere

Fully portable, take it anywhere -- re- mote sites, up towers, on DX-peditions. Use 10 AA or Ni-Cad batteries (not included) or 110 VAC with MFJ-1315, $14.95. Rugged all metal cabinet is only 4x2x6¼".

How good is the MFJ-259B?

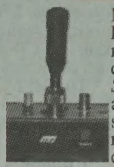
MFJ *SWR Analyzers*™ work so good, many antenna manufacturers use them in their lab and on the production line -- saving thousands of dollars in instrumentation costs! Used worldwide by professionals everywhere.

More SWR Analyzers™

MFJ-249B, $239.95. Like MFJ-259B, but reads SWR, true impedance magnitude and frequency only on LCD. No meters.

MFJ-209, $139.95. Like MFJ-249B but reads SWR only on meter. No LCD/counter.

SWR Analyzer Accessories



MFJ-66, $19.95. Plug these MFJ dip meter coupling coils into your MFJ *SWR Analyzer*™ and turn it into a sensitive and accurate *band switched* dip meter. Set of two coils cover 1.8-170 MHz depending on *SWR Analyzer*™.

MFJ-29C, $24.95. Tote your MFJ-259B anywhere with this *genuine* MFJ custom carrying case. Has back pocket with security cover for carrying dip coils, adaptors and accessories. Made of special foam-filled fabric, the MFJ-29C cushions blows, deflects scrapes, and protects knobs, meters and displays from harm. Has clear protective window for frequency display and cutouts for knobs and connectors. *Authentic!*

MFJ-731, $89.95. *Exclusive* MFJ tunable RF filter allows accurate MFJ SWR and impedance measurements between 1.8-30 MHz in presence of strong RF fields. Has virtually no effect on measurements. Works with all SWR Analyzers.

MFJ-92AA10, $24.95. Ten rechargeable 1.5 mAh Ni-MH MFJ SuperCell™ AA batteries.

MFJ-99, $54.85. *MFJ-259B Accessory Pack.* Carrying pouch, Dip coil Adapters and power supply. *Save $5!*

New! **MFJ-99B, $77.85.** *Deluxe Accessory Pack* has 10 Ni-MH batteries, power supply, pouch and dip coils. *Save $7!*

MFJ 1 MHz to 3 GHz Frequency Counter

Incredible package includes rechargeable Ni-Cd batteries, AC Adaptor and telescopic antenna

MFJ-886

$119.95

Ship Code A

MFJ-886 Frequency Counter covers 1 MHz to 3 GHz. It features 300 MHz direct count with 0.1 Hz-per-second resolution.

10-digit high-contrast LCD display is easy-to-read. Huge ⅜ inch digits are highly visible. Hold switch locks display.

Synchronous detector gives ultra-sensitive RF Signal Strength LCD bargraph.

Four selectable gate times gives .1 Hz to 10 Hz resolution in 300 MHz range and 10 Hz to 1000 Hz resolution in 3 GHz range.

Rechargeable Ni-Cd batteries (incl.) give up to 6 hours of use. Low battery indicator.

Rugged aluminum cabinet has black anodized finish. Compact 2¾Wx3¼H x1¼D inches fits in shirt pocket.

MFJ 270-480 MHz *SWR Analyzer*™

MFJ-229 **$179.95** Ship Code A

Read SWR of any antenna from 270 to 480 MHz.

Just plug in your antenna coax, set the frequency and read SWR!

Easy-to-read LCD displays frequency and SWR and has a *logarithmic* SWR bargraph for precision tuning. Two line high-contrast LCD has 32 huge 1/4 inch characters.

The MFJ-229 covers 270 to 480 MHz. You can select any desired frequency range for tuning.

Examples: Tune from 280 to 295 MHz, 320 to 350 MHz or 400 to 450 MHz, etc.

Tuning knob has a built-in 10:1 vernier reduction drive for extra smooth precision tuning.

You can use the MFJ-229 to adjust dipoles, verticals, yagis, quads and other antennas and determine their SWR, resonant frequency, and bandwidth.

You can test and tune stubs and coax lines. You can determine velocity factor, impedances and estimate losses of transmission lines.

You can adjust and test RF matching networks and RF amplifiers without applying power.

Use as signal source for testing and alignment.

Built-in "N" connector includes *free* N-to-SO-239 UHF adaptor. Has Battery Check and Power Saving feature. For 50 Ohm systems. Use 10 AA batteries or 110VAC with MFJ-1315, $14.95. 3¾Wx6½Hx1¾D in.

MFJ-219B, $99.95.

Similar to MFJ-229, less LCD display. Has meter for SWR and jack for external frequency counter. 2½Wx7½ Hx 2¼D inches.

Custom SWR Analyzers 24 to 350 MHz

$249.95 Ship Code A

MFJ-220A, 24-49 MHz;
MFJ-220B, 34-69 MHz;
MFJ-220C, 45-91 MHz;
MFJ-220D, 67-135 MHz;
MFJ-220E, 90-176 MHz;
MFJ-220F, 190-350 MHz;
MFJ-220G, 140-260 MHz.

Specify frequency range.
Allow 4 weeks for these models.

Measure signal strength + more with MFJ 2 Meter FM *SignalAnalyzer*™

MFJ-224 **$159.95** Ship Code A

Measure signal strength over 60 dB range, check and set FM deviation, measure antenna gain, beamwidth, front-to-back ratio, sidelobes, measure feedline loss in dB, analyze audio quality with a scope and much, much more!

MFJ's revolutionary handheld 2 Meter *FM SignalAnalyzer*™ lets you measure signal strength with over 60 dB dynamic range and measure actual feedline loss in dB.

Plug in any scope and your MFJ-224 becomes a service monitor! Lets you visually analyze modulation wave forms, audio distortion, noise and instantaneous peak deviation.

Tune in any signal between 143.5 - 148.5 MHz. Built-in discriminator-meter function makes accurate tuning simple and easy.

You can plug in headphones to help you tune in and identify signals easily. There's also a battery check function.

Here are some countless jobs that your MFJ *FM SignalAnalyzer*™ can perform . . .

Plot field strength patterns, **Position** antennas, **Measure** preamp gain, **Detect** feedline faults, **Track** down hidden transmitters, **Tune** transmitters and filters, **Check** and set deviation anywhere in the band plus much more!

Analyze audio quality with an oscilloscope, **Solve** FM radio problems fast, **Scan** the band, **Tune** in and identify signals, **Tune** transmitters and filters.

Uses 9 Volt battery (not included). Measures 4Wx2½Dx6¾H inches.

MFJ *RF Current Meter accurately measures true RF current*

MFJ-854 **$99.95** Ship Code A

MFJ-854 *RF Current Meter* reads true RF current! Accurately measures *actual* RF currents flowing in antenna elements, radials, ground wires and on the outside of coax feedlines. Study and optimize your antennas for peak performance.

It's also great for tracking down RFI-causing currents on household wiring.

MFJ-854's sense coil simply snaps over wires and cables for fast measurements on its easy-to-read meter.

Select from five ranges to measure actual RF current from 30 mA to 3 Amps full scale.

A sixth range has a variable sensitivity control for quick, fast checks. At maximum sensitivity, RF currents of 1 mA or less will yield a usable meter deflection. This function is especially useful for tracking RFI pickup on household wiring and cables.

It is sensitive enough to use an MFJ SWR Analyzer as the source to drive your antennas.

Here are some important features:

Accurate: Linearity compensation circuitry assures accuracy especially at low RF currents.

Wide Range: Measures RF current from as little as 1 mA to 3 Amps in six ranges.

Full HF Coverage: Accurate from 1 MHz to 30 MHz and useable beyond.

Low Interaction: Sense coil has minimal effect on circuits under test.

Handles most cables: Accepts cables up to approximately 1/2 inch in diameter.

Battery Saver: Press-to-test power circuit turns unit off automatically after 15 seconds.

Long Battery Life: Meter draws 3-mA, battery's service life approaches shelf-life.

Rugged: All-aluminum 2½Wx5½Hx1½D in. case and G-10 PC board, (incl. sense coil).

HF *10-160M SWR Analyzer*™

MFJ-207 **$79.95** Ship Code A

Plug in coax, find SWR of any HF antenna on any band 10-160 Meters. Jack for external frequency counter. 9 V battery or 110 VAC with MFJ-1312B, $14.95. 7½Hx2½Wx2¼D.

MFJ VHF *SWR Analyzer*™

MFJ-208 **$79.95** Ship Code A

VHF *SWR Analyzer*™ finds the SWR of any antenna from 138-156 MHz. Jack for external frequency counter. 9 V battery or 110 VAC with MFJ-1312B, $14.95. 7½Hx2½Wx2¼D.

1.5-250 MHz Dip Meter

MFJ-201 **$119.95** Ship Code A

Solid state grid dip meter covers 1.5-250 MHz in 6 bands. Thumb wheel tuning, color code readout, 6 coils, earphone jack and battery check. Use 9V battery. 2Wx2½Dx7H.

MFJ RX Noise Bridge

MFJ-202B **$59.95** Ship Code A

Adjust almost any antenna for maximum performance, 1 to 100 MHz. Hand-calibrated resistance scale, expanded capacitance range and exclusive built-in range extender. 4¼Wx2Hx4D in.

MFJ Antenna Bridge

MFJ-204B **$79.95** Ship Code A

Measure resonant frequency, resistance to 500 Ohms. Resistance bridge, null meter, tunable oscillator-driver (1.8-30 MHz). 9V or 110 Vac MFJ-1312, $14.95.7½Hx2½Wx2¼D".

6 Meter *SWR Analyzer*™

MFJ-217 **$79.95** Ship Code A

Same as MFJ-208 but covers 30-56 MHz for 6 Meters and commercial VHF radio. Jack for external frequency counter. 9 V battery or 110 VAC - MFJ-1312B, $14.95. 7½Hx2½Wx2¼D inches.

Professional Function Generators

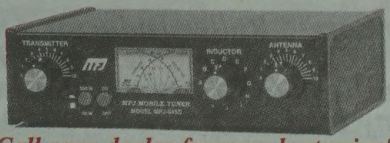
MFJ-5000 **$79.95** Ship Code A

This unique unit is the only compact, battery-operated function generator designed for travel or bench use. Based on an XR-2206 integrated circuit, it provides square, triangular, and sine waves continuously from 1 Hz to well over 150 KHz in 3 ranges. ¾Hx1¼W x1D in. Frequency range switch, external power jack, (3) 5-way binding posts. Use 9V battery.

MFJ-5004 **$129.95** Ship Code A

Gives precision sine, square and triangular wave forms from 1 Hz to 1 MHz in 6 decade ranges. Amplitude adjustable 0-12 volts peak-to-peak. DC offset is adjustable from -6 to +6 VDC. Output is short circuit protected with output impedance of 400 Ohms. Sturdy black all metal cabinet. 110 VAC.

Compact Mobile HF Antenna Tuner



Covers 1.8 to 60 MHz

New! Now covers 6-Meter band and has Antenna Bypass Switch!

Don't go mobile without it!

Don't leave home without this mobile tuner! Have an uninterrupted trip as MFJ-945E extends antenna bandwidth and eliminates needs to stop, go outside and readjust your mobile whip. Handles 300 Watts.

Super Compact Size

Small 8Wx2Hx6D inch black aluminum cabinet uses little room. The Cross-Needle meter shows SWR, forward and reflected power -- at a glance. It reads forward/reflected power in 300/60 and 30/6 Watt ranges. ON/OFF lamp switch. Requires 12 volts for lamp.

Fast, easy tuning

Convenient placement of controls makes tuning fast and easy while in motion. Antenna switch lets you bypass tuner andstill use the SWR/Wattmeter.

Back panel has SO-239 connectors for transmitter and coax and a wing nut post for your ground.

1000 Volt Capacitors

Efficient airwound inductor gives you lower losses and more Watts out. 1000 Volt capacitors. Covers 1.8 to 60 MHz. Use it at home in your base station when you're not in your RV, boat or car.

Mobile Mounting Bracket

Mobile mount, MFJ-20, $4.95. Add $2.00 shipping for bracket if ordered separately. 1 Year *No Matter What*™ warranty.

Call your dealer for your best price!

MFJ-945E

$109.95

Ship Code A

MFJ Cross-Needle *Super Value* Tuner

MFJ-941E

$119.95

Ship Code B

MFJ-941E gives you a 300 Watt antenna tuner that covers everything from 1.8-30 MHz -- plus you get a lighted Cross-Needle meter with on/off switch (light uses 12 VDC or 110 VAC with MFJ-1312B, $14.95), antenna switch and 4:1 balun . . .

MFJ's lighted Cross-Needle meter shows SWR, forward and reflected power all at a glance in 300/60 and 30/6 Watt ranges.

8 position antenna switch lets you select 2 coax lines, random wire/balanced line or dummy load (direct or through).

Efficient 12 position airwound inductor gives lower losses and more power out. Has 4:1 balun, 1000 Volt capacitors.

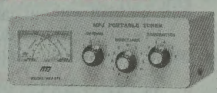
Beautiful aluminum cabinet has a durable scratch-proof multi-color Lexan front panel matches your rig perfectly and fits right into your station. Measures compact 10⅝Wx2⅞Hx7D inches.

Portable Antenna Tuner

MFJ-971

$99.95

Ship Code A



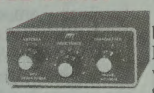
Tiny 6x6x2½ inches matches the popular MFJ SSB, CW QRP Transceivers. Tunes coax, balanced lines, random wire 1.8-30 MHz. Cross-Needle SWR/Wattmeter has 2 power ranges: 30, 300 or selectable 6 Watt. Perfect in-shack or mobile!

MFJ's smallest Versa Tuner

MFJ-901B

$79.95

Ship Code A



MFJ's smallest (5x2½x6) and most affordable 200 Watt PEP Versa Tuner. Match dipoles, vees, random wires, verticals, mobile whips, beams, balanced and coax lines continuously from 1.8-30 MHz. A 4:1 balun for balanced lines is built into this MFJ-901B tuner.

Random Wire Tuner

MFJ-16010

$49.95

Ship Code A

Operate all bands 1.8-30 MHz -- anywhere with any transceiver -- using random wire and MFJ's Antenna Tuner. Small enough to carry your hip pocket (2x3x2 inches). Handles 200 Watts output. Match high and low impedances by interchanging input and output. SO-239 connectors.

Antenna Tuner/Artificial Ground

Turns random wire into an effective antenna!

MFJ-934

$179.95

Ship Code B

MFJ-934 combines a versatile antenna tuner with an artificial ground. It turns a random wire into an effective antenna that works. It's great for traveling, emergency or as a makeshift antenna.

You get all the best features of the MFJ-941E Cross-Needle Antenna Tuner and the MFJ-931 Artificial Ground in a single compact 10⅝Wx3½Hx8D inch cabinet -- and the MFJ-934 cost less.

You get a 300 Watt full featured, general purpose antenna tuner that covers 1.8-30 MHz. It has a two range, lighted Cross-Needle Meter that lets you read SWR, forward and reflected power all in a glance and a 4:1 balun for balanced lines. Plus, you get an efficient airwound inductor, special high current/voltage 12 position inductor switch and two 1000 volt air-variable capacitors. it tunes all types of antennas and feedlines including random wire, coax and balanced lines.

The MFJ-934 is unique because it has a built-in artificial ground. A ground matching knob lets you switch in inductance to bring an attached wire to a low impedance current point to form an artificial ground. A push button lets you use the Cross-Needle Meter to monitor for maximum ground current.

With an artificial ground to work against, you'll be surprised to see how well a random wire can work. Don't be surprised if you can work the world without hours of calling CQ. When you don't need the artificial ground feature, you can use the MFJ-934 as a full featured tuner.

MFJ-931 Artificial RF Ground

MFJ-931

$89.95

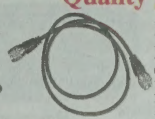
Ship Code A

The MFJ-931 effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible! It electrically places far away RF ground at your rig.

How's your RF ground? Do you have RF "hot spots" that "bite" you when you transmit? Do you have RF feedback that causes your rig to quit working on some bands? Do you have TVI/RFI that makes your neighbors hard to live with? Do you get weak signal reports because of extreme ground losses or radiation pattern distortion? **These** problems could be caused by poor RF grounding, especially if your rig is on a second floor with no ground at all. Even if you have a good ground, a long connection wire can ruin its effectiveness by isolating a true RF ground from your rig. 7½Wx3½Hx7D inches.

MFJ-931 creates an artificial RF ground! It resonates a random length or wire thrown along the floor and produces a tuned counterpoise. This ground effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible. Covers 1.8 to 30 MHz.

Quality pre-made RG-8X coax patch cables



Molded, weather resistant PL-259 connectors let you conveniently hook up your transceiver and accessories. Heavy rubber boots protect bend points.

MFJ-5850, $17.95. 50 foot coax cable with quality PL-259 connector on one end w/ open end on other.

MFJ-5818, $12.95. 18 foot coax cable with PL-259 on each end.

MFJ-5806, $9.95. 6 foot coax cable with PL-259 on each end.

MFJ-5803, $5.95. 3 foot coax cable with PL-259 on each end.

MFJ 300 Watt *Roller Inductor* Tuner

World's only 300 Watt AirCore™ Roller Inductor Antenna Tuner gives you absolute minimum SWR . . . Covers 6 Meters thru 160 Meters . . . true peak reading lighted Cross-Needle meter . . . tunes any antenna . . . 8 position antenna switch . . . dummy load . . . balun . . . No Matter What™ warranty

Covers 6 Meters thru 160 Meters!

MFJ-969

$199.95

Ship Code B

Call your dealer for your best price!

MFJ-969 gives you MFJ's superb AirCore™ Roller Inductor and full 6 Meters through 160 Meters coverage!

You get everything you've ever wanted including . . . 300 Watts PEP SSB full featured antenna tuner, widest matching range, full-size lighted Cross-Needle SWR/Wattmeter reads true peak forward power, QRM-Free PreTune™, 8 position antenna switch, built-in 50 Ohm dummy load, heavy duty 4:1 balun -- all in a tough, attractive cabinet. MFJ's famous 1 year No Matter What™ warranty.

AirCore™ Roller Inductor

MFJ-969's *AirCore™* Roller Inductor, gear-driven turns counter and spinner knob gives you exact inductance control for absolute minimum SWR.

MFJ's exclusive *AirCore™* Roller Inductor has an air core that can't burn up! You get ultra high-Q, the lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive *Self-Resonance Killer™* keeps potentially damaging self-resonances away from your frequency.

Huge self-cleaning wiping contact gives you excellent low-resistance connection without contact arcing or burning.

Solid 1/4 inch brass shaft, self-align bearings -- smooth non-binding operation.

Covers 6 through 160 Meters

The MFJ-969 covers all frequencies from 160 Meters thru 6 Meters, including the "magic band" -- the widest matching range of any full featured antenna tuner.

Match any antenna

Match dipoles, verticals, inverted vees, random wires, beams, mobile whips, SWL receiving antennas -- nearly any antenna.

You can use coax cable, random wire or balanced lines. Has heavy duty 4:1 balun.

New true Peak Reading Cross-Needle Meter

MFJ's new *ActivePeak ReadingCircuit™* accurately reads *true* peak forward power -- *an MFJ exclusive.*

MFJ's lighted Cross-Needle SWR/Wattmeter reads SWR, *true* peak forward and average reflected power simultaneously on 300 Watt or 30 Watt ranges.

Lamp has on/off switch and uses 12 VDC or 110 VAC with MFJ-1312B, $14.95. *ActivePeakReading Circuit™* can also use a 9 volt battery.

8 Position Antenna Switch

MFJ's 8 positions let you select two coax fed antennas, random wire/balanced line or built-in dummy load for use through your MFJ-969 or direct to your rig.

QRM-Free PreTune™

MFJ's *QRM-Free PreTune™* lets you pre-tune MFJ-969 off-the-air into a built-in dummy load without causing QRM.

Pre-tuning into a dummy load makes tuning your actual antenna quick and easy!

Full Size Dummy Load

The MFJ-969 has a full size non-inductive 50 Ohm dummy load. You'll find it handy for tuning, testing, repairing rigs, setting power level, adjusting mic gain, etc.

Superior Cabinet

New tough aluminum case has a scratch-proof multi-colored Lexan front panel. Compact 3½Hx10½Dx9½W inches.

MFJ-949E *Deluxe* 300 Watt Tuner

MFJ-949E **$149.95** *Ship Code B*

More hams use MFJ-949s than any other antenna tuner in the world!

Why? Because the world's leading tuner has earned a worldwide reputation for being able to match just about anything.

Full 1.8-30 MHz Operation

Custom designed inductor switch, 1000 volt tuning capacitors, Teflon® insulating washers and proper L/C ratio gives you *arc-free* no worries operation with up to 300 Watts 1.8 to 30 MHz.

Tunes any Antenna

Tunes out SWR on dipoles, verticals, inverted vees, random wires, beams, mobile whips, shortwave receiving antennas . . . nearly anything! Use coax, random wire or balanced lines. Has heavy duty 4:1 balun.

Custom Inductor Switch

The inductor switch is the most likely component to burn up in *any* antenna tuner.

MFJ's inductor switch in the MFJ-949E was *custom* designed to withstand the extremely high RF voltages and currents that are developed in your tuner.

8 position Super Antenna Switch

Lets you select two coax fed antennas, random wire/balanced line or built-in dummy load through your MFJ-949E or direct to your transceiver.

Full Size Lighted Cross-Needle Meter

Has MFJ's *full size* 3 inch lighted Cross-Needle Meter (not a puny "meter" you can't read). Lets you easily read SWR, true *peak* forward and average reflected power simultaneously on 300 Watt or 30 Watt ranges. Lamp has on/off switch, requires 12 VDC or 110 VAC with MFJ-1312B, $14.95.

QRM-Free PreTune™

MFJ's *QRM-Free PreTune™* lets you pre-tune your MFJ-949E *off-the-air* into its built-in dummy load! Makes tuning your actual antenna faster and easier.

Plus Much More!

Full size built-in non-inductive 50 Ohm dummy load, scratch-proof Lexan multi-colored front panel, superior cabinet and construction and more! 10⅜x3½x7 inches.

MFJ-948 -- an *econo MFJ-949E* for only $129.95!

MFJ-948

$129.95

Ship Code B

Has nearly all the features (except dummy load) of the MFJ-949E -- the world's leading 300 Watt antenna tuner -- for an *incredibly low $129.95!* Features include forty-eight position *Precision48™* inductor, 1000 volt tuning capacitors, *full size* 3 inch lighted Cross-Needle meter, 8 position super antenna switch, heavy duty 4:1 balun, full 1.8 to 30 MHz operation, MFJ's famous *No Matter What™* one year limited warranty. Black. 10½x3½x7 inches.

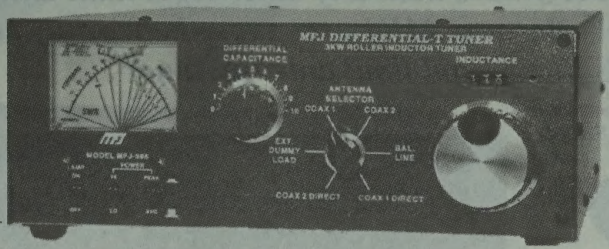
MFJ KW *Differential-T*™ Antenna Tuner

. . . Gives you absolute minimum SWR . . . Simple 2-knob tuning . . . Lighted Cross-Needle SWR/Wattmeter . . . New AirCore™ Roller Inductor . . . 6-position antenna switch . . . Balun for balanced lines . . . 1.8-30 MHz coverage . . .

MFJ-986

$329.95

Ship Code E



- *Easy 2-knob tuning*
- *Covers 1.8-30 MHz*
- *Peak and average Cross-Needle Meter*
- *Differential capacitor*
- *Roller inductor with 3-digit turns counter*
- *TrueCurrentBalun™*
- *Antenna Switch*

The MFJ-986 is a rugged roller inductor antenna tuner that handles 3 KW PEP SSB amplifier input power (1500 Watts PEP SSB output power). Tunes 1.8-30 MHz *continuously*, including MARS and all the WARC bands.

MFJ's exclusive *AirCore*™ Roller Inductor gives *absolute minimum* SWR -- something tapped inductors just can't do.

3-digit turns counter plus a spinner knob gives precise inductance control so you can quickly retune your frequency.

A *lighted* peak and average reading Cross-Needle meter shows SWR, forward and reflected power at a single glance!

You get a 6-position antenna switch that lets you select two coax lines and/or random wires (direct or through tuner), balanced line and external dummy load.

The *MFJ TrueCurrentBalun*™ for balanced lines minimizes feedline radiation that causes field pattern distortion, TVI and RF in your shack. *Ceramic* feedthru insulators for balanced lines withstand high voltages and temperatures.

Differential-T Tuner™ . . . . A new Twist on a Proven Technology

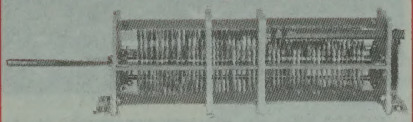
Replacing two variable capacitors with a *single* differential capacitor gives a wide range T-network tuner with only two controls -- a tuning capacitor and a roller inductor.

Simple 2-knob tuning makes tuning easier than ever. You get minimum SWR at only *one* setting and a broadband response that ends constant re-tuning. You'll spend your time QSOing instead of fooling with your tuner.

The compact 10¾x4½x15 inch cabinet has plenty of room to mount the roller inductor away from metal surfaces for highest Q -- you get high efficiency and more power into your antenna.

Wide-spaced tuning capacitor plates let you run high power without arcing.

MFJ *AirCore*™ Roller Inductor



MFJ's exclusive *super heavy duty AirCore*™ Roller Inductor has an air core that can't burn up! You get ultra high-Q, the lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive *Self-Resonance Killer*™ keeps potentially damaging self-resonances away from your operating frequency.

Large, self-cleaning wiping contact gives excellent low-resistance connection without contact arcing or burning.

A solid 1/4 inch brass shaft with self-align bearings gives smooth non-binding rotation.

Lighted Cross-Needle Meter

MFJ's lighted Cross-Needle Meter shows you SWR, forward and reflected power *simultaneously*. It reads *peak* or average power on 2000 or 200 Watt ranges.

Lamp has on/off switch and uses 12 VDC or 110 VAC with MFJ-1312B, $14.95.

MFJ TrueCurrentBalun™ reduces feedline radiation

Most tuners use a *voltage* balun that forces equal voltages on the two antenna halves. It minimizes unbalanced currents only if the antenna is perfectly balanced -- not the case with practical antennas.

The MFJ-986 uses a *true* current balun to force equal *currents* in the two antenna halves -- even if the antenna is not perfectly balanced!

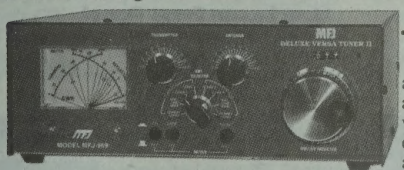
The *MFJ TrueCurrentBalun*™ gives superior balance over voltage baluns and minimizes unbalanced current. This reduces field pattern distortion, concentrates your power for a stronger signal -- plus it reduces TVI and RF in your shack caused by feedline radiation.

Call your dealer for your best price!

In stock at ham dealers everywhere.

MFJ-962D *compact* Tuner for linear amplifiers

NEW MFJ AirCore™ Roller Inductor, Compact Size, Lexan scratch-proof front panel . . . handles AMERITRON's AL-811H!



MFJ-962D

$269.95

Ship Code E

Why settle for a mere 300 Watt antenna tuner when a *few* extra dollars let you add *real* power when you're ready? The MFJ-962D lets you use your barefoot rig now.

When you're ready . . . you can add a powerhouse linear amplifier at no additional cost.

The compact MFJ-962D handles 1500 Watts PEP SSB amplifier input power (800 Watts PEP SSB amplifier output power). It's perfect for *AMERITRON's* best selling 800 Watt AL-811H or 600 Watt AL-811 amplifiers.

MFJ-962D is new and improved! New features include MFJ's *AirCore*™ Roller Inductor, new aluminum-skirted knob set including a weighted deluxe spinner knob, ultra compact size (10⅞ x4 x 10⅞ inches) and scratch-proof multi-colored Lexan front panel.

Two transmitting tuning capacitors and MFJ's exclusive *AirCore*™ roller inductor gives you precise control to get your SWR down to an absolute minimum.

You get an extremely wide matching range from 1.8 to 30 MHz *continuously*, including MARS and WARC bands.

MFJ's *AirCore*™ roller inductor has an air core that can't burn up. You get ultra high-Q, low loss and MFJ's exclusive *Self-Resonance Killer*™ that eliminates damaging self-resonances.

MFJ's *lighted* peak and average reading Cross-Needle SWR/Wattmeter makes tuning quick and easy. At one glance you can read SWR, forward and reflected power in two power ranges. Meter light uses 12 VDC or 110 VAC with MFJ-1312B, $14.95.

A 6-position *ceramic* antenna switch lets you select 2 coax lines (direct or through tuner), random wire and balanced lines.

You get a heavy duty MFJ *TrueCurrentBalun*™ for balanced lines. High-voltage *ceramic* feedthru insulators let you operate high power into balanced feedlines.

MFJ-989C *Legal Limit* Antenna Tuner

More hams use MFJ-989s than any other legal limit antenna tuner in the world! Why? Because MFJ uses super heavy duty components to make the world's finest legal limit antenna tuner . . .

In Stock at ham dealers everywhere!
Call your dealer for your best price
MFJ-989C

$359.95

Ship Code E

- *MFJ AirCore™ Roller Inductor*
- *Super Heavy Duty Components*
- *Cross-Needle SWR/Wattmeter*
- *Antenna Selector*
- *TrueCurrent™ Balun*
- *Built-in Dummy Load*
- *Made in U.S.A.*

MFJ uses super heavy duty components -- roller inductor, variable capacitors, antenna switch and balun -- to build the world's most popular high power antenna tuner.

The rugged world famous MFJ-989C handles 3 KW PEP SSB amplifier input power (1500 Watts PEP SSB output power). Covers 1.8 to 30 MHz, including MARS and WARC bands.

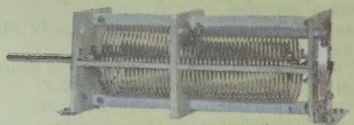
MFJ's AirCore™ Roller Inductor, new gear-driven turns counter and weighted spinner knob gives you exact inductance control for absolute minimum SWR.

You can match dipoles, verticals, inverted vees, random wires, beams, mobile whips, shortwave -- nearly any antenna. Use coax or balanced lines.

You get everything you've ever wanted in a high power, full featured antenna tuner -- widest matching range, lighted Cross-Needle SWR/Wattmeter, antenna switch, built-in dummy load, balun -- all in a sleek, compact cabinet.

MFJ builds the world's most popular high power antenna tuner using these super heavy duty components . . .

MFJ *AirCore*™ Roller Inductor



MFJ's exclusive heavy duty *AirCore*™ Roller Inductor has an air core that can't burn up! Get ultra high-Q, lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive *Self-Resonance Killer*™ keeps damaging self-resonances away from your operating frequency.

Large, self-cleaning wiping contact gives excellent low-resistance connection without contact arcing or burning.

Solid 1/4 inch brass shaft, self-align bearings give smooth non-binding rotation.

Competing tuners use a lossy, low Q, solid plastic core with erratic electrical contacts and have potentially damaging self-resonant frequencies. This can cause excessive heating and *melt* the core!

New Gear Driven Counter

A new precision *gear driven* 3-digit turns counter lets you accurately reset your roller inductor for quick band changing.

Weighted spinner knob on roller inductor gives you smoother flywheel tuning.

Massive Transmitting Capacitors

Look inside . . . you'll see two *super-heavy duty* transmitting variable capacitors that can handle 6000 volts. Extra wide (0.27 inch) stator plate spacing gives you arc-free operation.

Specially shaped plates give low minimum capacitance when unmeshed. This and a hefty 250 pf maximum give you an extremely wide matching range -- even on 160 and 10 Meters.

The nearest competing "legal limit" tuner has variable capacitors physically smaller than MFJ-989C's. Theirs is rated at 4500 volts -- a full *25% less* than the MFJ-989C. Theirs is more likely to arc -- *not what you want in a "legal limit" tuner!*

Super Antenna Switch

MFJ-989C's *super heavy duty* antenna switch is made of *two* individual *ceramic* wafers wired in parallel. Extra wide spaced, heavy duty contacts handle extreme voltages and currents. *We've never burned one up!*

You can select two coax antennas (directly or through tuner), balanced line/random wire, or built-in dummy load.

MFJ *TrueCurrent*™ Balun

MFJ's super heavy duty *TrueCurrent*™ balun for balanced lines uses *two* giant 2½ inch toroid cores. It's wound with *Teflon*® wire connected to high-voltage *glazed ceramic* feedthrough insulators.

The MFJ-989C lets you safely operate high power into balanced feedlines without core saturation or voltage breakdown.

Some "legal limit" tuners have inferior voltage baluns with smaller diameter toroid cores and use soft plastic feedthrough insulators that can arc and melt.

More reasons why the MFJ-989C is the world's finest high power antenna tuner:

Built-in Dummy Load

A *full-size* 300 Watt non-inductive 50 Ohm dummy load is built into MFJ-989C.

You'll find it handy for transmitter tuning, testing and repairing rigs, setting power level, adjusting mic gain and more.

Some "legal limit" tuners *don't* have a built-in dummy load. They want *you* to pay for external loads that get in your way.

Lighted Cross-Needle Meter

Lighted *Cross-Needle* SWR/Wattmeter lets you monitor SWR, forward and reflected power *simultaneously*. Read both peak and average power in two power ranges. Meter lamp requires 12 VDC or 110 VAC with MFJ-1312B, $14.95.

Sleek and Compact

The compact MFJ-989C slides right into your operating position -- you'll hardly know it's there. It's just 10¾Wx4½Hx15D inches. *Do you want a bulky "legal limit" tuner that's bigger than your amplifier?*

New Lexan Front Panel

The MFJ-989C has a new nearly indestructable multi-color Lexan front panel. Its detailed logging scales and legends will be legible for a lifetime of DXing.

Super Construction

MFJ-989C uses PEM nuts (*not* self-tapping screws), wing-nut ground post (*not* a cheap nut), fire-retardant epoxy glass PC board (*not* canvas based), heavy gauge wire thru-out (*not* small gauge), locking compound on nuts/bolts (*not* loose hardware).

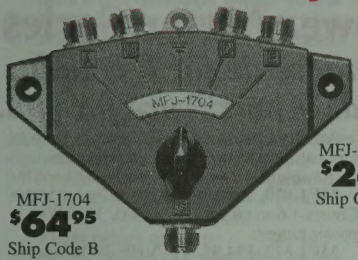
No Matter What™ Warranty

Every MFJ-989C is protected by MFJ's famous one year *No Matter What*™ limited warranty. We will repair or replace your MFJ-989C (at our option) for a full year.

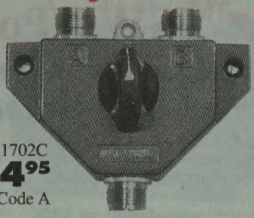
Outstanding Customer Service

We're here to help keep your MFJ-989C performing flawlessly -- *no matter how long you own it* -- call 662-323-0549.

MFJs Heavy Duty Coax Antenna Switches



MFJ-1704
$64.95
Ship Code B



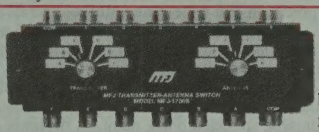
MFJ-1702C
$24.95
Ship Code A

MFJ-1704 selects any of 4 antennas or center ground position. Replaceable lightning surge protector helps protect against distant lightning induced surges and static. Handles 2.5 kW PEP. Extremely low SWR. Isolation better than 50 dB at 30 MHz and better than 50 dB at 500 MHz. Negligible insertion loss. 50 Ohms. Mounting holes. **MFJ-1704N, $74.95.** "N" connectors.

MFJ-1702C 2-position coax switch has a center ground position and lightning surge protection! 50 dB at 450 MHz. 50 Ohm. Unused terminal is automatically grounded. Less than 0.2 dB insertion loss and SWR below 1.2:1. Heavy duty cavity type construction. SO-239 connectors. Mounting holes. 3x2x2 inches. **MFJ-1702CN, $34.95.** Type N. DC-1.1 GHZ.

MFJ-1701
$49.95
Ship Code B

Six position antenna switch. Select 1 of 6 antennas 1.8-30 MHz. Unused terminals are grounded. SO-239 connectors. 2 kW PEP, 1 kW CW. 50-75 Ohm loads.



MFJ-1700B
$79.95
Ship Code B

High power Antenna/Transceiver Switch lets you select one of six antennas and one of six different transceivers in any combination. You can plug in an antenna tuner, meter, etc., so it is always connected to the antenna and radio selected. 2 kW PEP. 50-75 Ohm loads. Unused terminals are automatically grounded. SO-239 connectors. 1.8 to 30 MHz. 10x3x1½ inches.

MFJ *kilowatt* Load

MFJ-250X
$39.95
Ship Code A

1KW CW/ 2 KW PEP for 10 minutes. 200 Watts CW or 400 Watts PEP continuous. Derating curve, 50 Ohm non-inductive resistor. Transformer oil not included. Low SWR to 400 MHz. SO-239 connector. Removable vent cap. Carrying handle. 7½ inches high by 6⅝ diameter. **MFJ-250, $59.95.** Includes transformer oil (no PCB). Ship Code D.

MFJ-21, $24.95. 1 gallon industrial grade transformer oil, (no PCB). Ship Code C.

1.5 kW *UHF/VHF/HF* Dry Load

World's most versatile 50 Ohm dummy load. SWR below 1.3 to 650 MHz. 100 Watts for 10 minutes, 1500 Watts for 10 seconds. Strong lightweight aluminum construction with perforated top and side panels Super compact 3Wx3Hx9D inches fits anywhere. *Made in U.S.A.*

MFJ-264
$69.95
Ship Code A

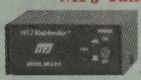
MFJ-264N, $79.95. Similar to MFJ-264 but with type "N" connector.

Dry 300 Watt VHF/HF Dummy Load

Air cooled, non-inductive 50 Ohm resistor in a perforated metal housing has SO-239 connectors. 300 Watts for 30 seconds. Derating curve to 5 mins. SWR below 1.1:1 to 30 MHz, 1.5:1 from 30 to 650 MHz. 2¼x2¼x7 inches. **MFJ-260CN, $39.95.** Similar to MFJ-260C but with type "N" connector.

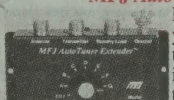
MFJ-260C
$34.95
Ship Code A

MFJ Tune-Up *Matchmaker*™



MFJ-212, $79.95. Tune up your antenna tuner for 1:1 SWR without transmitting! Avoids overheating/arcing caused by high SWR and long tune-ups. Automatic T/R switch bypasses MFJ-212 to prevent damage. Handles 300 Watts. Works with all radios 160-6 Meters. 3⅓x1¼x4 inches.

MFJ *AutoTuner Extender*™

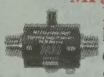


MFJ-914, $59.95. Does your HF rig's automatic tuner have limited matching range? MFJ-914 transforms your antenna impedance by as much as 10 times! Puts nearly any antenna into the range of your automatic or manual tuner. 160-10 Meters. 300 Watts. Bypass position.

MFJ *AmplifierSaver*™ Interface

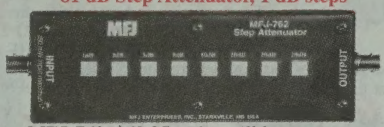
MFJ-914, $59.95. This lets you safely tune up your kilowatt linear amplifier at full peak power for best linearity. Keeps average power to a low safe level to prevent overheating power supply stress. Plugs into your rig's CW key jack. Simply press Pulse Tune button and tune your amplifier normally for maximum power output. Uses 9V battery (not included).

MFJ Lightning Surge Protector



MFJ-270, $29.95. Safeguard your ham radio equipment from static electricity and lightning induced surges on 50 Ohm coax feedlines. *Ultra-fast* gas discharge tube safely shunts up to 5000 amps of peak impulse current harmlessly to an independent ground. SWR less than 1.1:1. Less than 0.1 dB loss. Use up to 1000 MHz. 400 Watts PEP. SO-239 connectors. Does not handle direct lightning hit. **MFJ-97, $9.95.** Replaceable gas tube.

81 dB Step Attenuator, 1 dB steps



MFJ-762, $69.95. *This will be your most useful ham shack accessory!* 50 Ohms. Usable to 500 MHz. 250 milliwatt maximum input. BNC connectors. Shielded stages. Connect between receiver and antenna and use an S-meter as a precision calibrated field strength meter. Prevent receiver blocking, cross-modulation. Determine gain and loss. Ideal for fox hunting. Evaluate linearity. Measure input and output level differences. Isolate circuits. Extend the range of your sensitive equipment. 6½Wx2½Hx1½D inches.

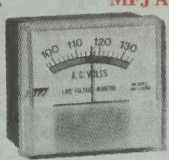
MFJ *Mobile Antenna* Matcher

MFJ-910, $19.95. Matches mobile antennas 10 through 80 Meters. Get more power into your antenna! 2½x2½x1½ inches -- easily fits in your glove compartment.

MFJ W9INN Balun Box

MFJ-912, $49.95. Converts unbalanced coax to balanced ladder transmission line. Giant 2-core 4:1 balun wound with Teflon® wire. 3¼x2¼x7 in. Ceramic feed-thru insulators. Full legial limit. SO-239.

MFJ AC Line Monitor

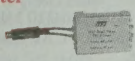


MFJ-850, $19.95. Color coded scale lets you read voltage from 95-135 Volts. 2% Accuracy. 2¼Wx2¼Hx1½D inches. Great accessory for the ham shack and motor homes!

MFJ Low Pass Filter

MFJ-704, $49.95. Suppress TVI, RFI, telephone and other interference by reducing unwanted harmonics going to your antenna. 9 poles, *Teflon® Dielectric Technology*™ capacitors, hi-Q inductors, ground plane shielding, RF tight. Gives 1.5 kW TVI/RFI protection from 1.8-30 MHz.

High Pass TVI Filter



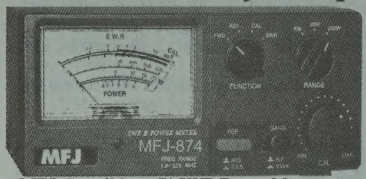
MFJ-711, $19.95. MFJ's *Shield Breaker*™ high pass filter effectively suppresses annoying TVI! Wipe out TVI caused by broadcast, commercial, two-way, amateur and CB radios operating below 30 MHz. Use between cable/antenna and TV/VCR. For 75 Ohm cable or 300 Ohm twin lead.

MFJ RFI Free Choke Kit

MFJ-701, $14.95. Eliminate common RFI problems by simply winding the offending cable around RFI suppressing toroids. 4 square ferrite toroids are formulated especially for eliminating RFI from .5 -200 MHz. Wind on all kinds of cable, computer ribbon, TV coax, power, telephone, etc.

MFJ *GrandMaster*™ SWR/Power Meter Series

The Cadillac of ham radio! If you simply will not settle for less than the best accuracy and precision these MFJ GrandMasters™ are for you.



MFJ *GrandMaster*™ SWR/Power Meters are the Cadillacs of ham radio! If you simply will not settle for less than the best accuracy and precision these MFJ *GrandMasters*™ are for you.

You get a large $3^1/_4$x$1^1/_4$ inch precision illuminated meter for easy wide-angle viewing. A highly visible black and red meter scale on a bright white background makes it quick and easy to read SWR, forward or reflected power. Meter lamp requires 13.8 VDC or 110 VAC with MFJ-1312C, $14.95.

A functional and simple front panel layout lets you select power ranges, bands or make SWR readings intuitively.

The *GrandMaster*™ series feature an SWR scale that expands the full view of the meter. 3:1 SWR is centered at mid-scale to give you precision and wide-range measurements.

All GrandMasters™ feature peak and average, forward and reflected power readings and have selectable power ranges.

Each *GrandMaster*™ is housed in an all metal cabinet with rubber feet and protected by durable speckled black paint. A designer injection molded grey front panel perfectly matches any transceiver. $7^1/_2$Wx$3^1/_8$Hx$4^1/_4$D inches.

Air dielectric SO-239 connectors with gold plated center pins gives superb performance to beyond 525 MHz.

All *GrandMaster*™ Meters are precisely factory calibrated for accurate measurments.

Choose from four MFJ GrandMasters™

MFJ-870, $134.95. HF SWR/Power Meter. Covers 1.6 to 60 MHz. 30, 300, 3000 Watt power ranges.

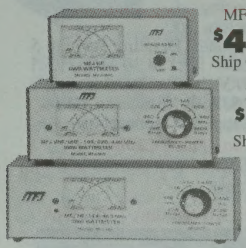
MFJ-872, $94.95. HF/VHF SWR/Power Meter. Covers 1.8 to 200 MHz. 5, 20, 200 Watt power ranges.

MFJ-873, $114.95. VHF/UHF SWR/Power Meter. Covers 125 to 525 MHz. 5, 20, 200 Watt power ranges.

MFJ-874, $169.95. HF/VHF/UHF SWR/Power Meter. Covers 1.8-525 MHz. 5, 20, 200 Watt power ranges.

MFJ gives you its famous *No Matter What*™ one year limited warranty. MFJ will repair or replace (at our option) your *GrandMaster*™ Meter *no matter what* for one full year.

MFJ HF, VHF, UHF Compact SWR/Wattmeters



MFJ-860 **$44.95** Ship Code A

MFJ-862 **$54.95** Ship Code A

MFJ-864 **$84.95** Ship Code A

This new MFJ Cross-Needle SWR/Wattmeter Covers HF thru VHF -- 1.8-60 MHz, 144 MHz, and 440 MHz bands -- for an *incredibly low $84.95!*

MFJ-864's *Cross-Needle* Meter reads forward and reflected power and SWR simultaneously at a single glance. It features separate HF and VHF/UHF directional couplers, each with its own SO-239 connectors.

This lets you connect your HF and VHF/UHF transceivers at the same time. You can then monitor SWR and power of either transceiver at the flick of a switch. Others have a single set of connectors -- you have to plug and unplug to use separate HF or VHF rigs.

Power ranges: 30/300 Watts forward and 6/60 Watts reflected. Each power range for each band is individually calibrated. Schottky diodes are used for best accuracy.

Single knob operation makes it easy to use and the meter is lighted for easy reading. Meter uses 12 VDC or 110 VAC with optional adapter, MFJ-1312B, $14.95.

The attractive all metal black cabinet has a tough vinyl cladding that won't scratch off. You won't find a tougher, longer lasting finish anywhere. MFJ-864 measures a compact $7^1/_4$Wx$2^1/_2$Hx$2^1/_4$ D inches.

MFJ-862 covers 144/220/440 MHz. **Similar** to MFJ-864 but covers 144/220/440 MHz. 30/300 Watts forward, 6/60 Watts reflected ranges. $5^3/_4$x$2^1/_2$x$2^1/_4$ inches. Has one sensor for all three bands.

MFJ-860 covers 1.8 to 60 MHz. **Similar** to MFJ-864 but for 1.8-60 MHz only. Push button selects 30/300 Watts forward, 6/60 Watts reflected. Compact $4^1/_2$x$2^1/_4$x3 inches.

MFJ large 3 inch HF or VHF Meter

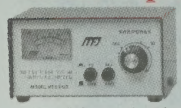
MFJ-815B **$79.95** Ship Code A

MFJ-815B covers 1.8-60 MHz. **Extra-Large** 3 inch Cross-Needle Meter reads SWR and peak/average for forward and reflected power. Power ranges: 200/2000 Watts forward and 50/500 Watts reflected. Reads SWR from 1:1 to 8:1. SO-239 connectors.

Meter lamp uses 12 VDC or 110 VAC with MFJ-1312B, $14.95. Measures $7^1/_4$x$4^1/_2$x$3^1/_2$ inches. Black aluminum cabinet.

MFJ-817, $89.95. Similar to MFJ-815B but for VHF/UHF. Reads SWR and peak/average for forward and reflected power in 2 power ranges: 200/20 and 50/5 Watts.

Most Popular VHF or HF Meters



MFJ-812B **$34.95** Ship Code A

This is the world's most popular and most affordable VHF SWR/Wattmeter.

It has a built-in Field Strength Meter. Covers 144 and 220 MHz.

Read forward and reflected power in 2 ranges -- 30 or 300 Watts. Reads SWR from 14 thru 220 MHz.

MFJ-812B also reads relative field strength from 1 to 220 MHz. Has binding post for field strength antenna. 2 color meter. Measures a super compact $4^1/_2$x$2^1/_4$x3 inches. Eggshell white.

MFJ-816, $34.95. Similar to MFJ-812B but for HF. Two scales--30/300 Watts. SWR from 1.8-30 MHz. Toroid current pickup gives uniform sensitivity. 2-color meter scale.

MFJ Field Strength Meters

MFJ-801 **$19.95** Ship Code A

MFJ-802 **$39.95** Ship Code A

These new easy-to-use MFJ antenna meters show the strength of the actual field being radiated from your antenna.

You can use it to determine the basic radiation pattern of your antenna and see which direction your signal is strongest. **You** can make changes to your antenna and instantly know if it radiates better or worse. **You** can compare one antenna to another. Find out which HT antenna radiates the strongest signal?

Measure your HF antenna now and compare it later to make sure its performance is still up to par. **Adjust** a ground lead, artificial ground, counterpoise or tune your transmitter or antenna tuner for maximum field strength. **You** can check for RF floating around the shack that may be caused by faulty antennas or poorly shielded equipment. **Demonstrate** the concept of gain or antenna polarization. **Find** hidden transmitter bugs at office or house. **Usable** from 100 KHz to 500 MHz.

MFJ-802, $39.95. Telescoping *dipole* antenna (40 in. extended) reduces influence of surrounding objects. More reliable and repeatable readings than MFJ-801. Huge 3" meter spans width of case. Sensitivity control. Jack for MFJ-802R remote RF sensing head. $2^5/_8$Wx4Hx$1^1/_2$D in.

MFJ-802R, $24.95. Place this RF sensing head where you want it and read your field strength remotely where you can control your transmitter or rotate your beam. Requires shielded two conductor cable (not incl). $2^3/_8$Wx$3^5/_8$Hx1D in. **MFJ-802X, $59.90**, MFJ-802/802R combo.

MFJ-801, $19.95. Great general purpose field strength meter. Easy-to-read $1^3/_4$ inch meter. Sensitivity control. 20 inch (extended) monopole. Finger contact on side increases sensitivity when needed. $2^3/_8$x$3^3/_8$ x1 in.

MFJ *Switching* Power Supplies

MFJ's new adjustable voltage switching power supplies do it all! Power your HF or 2M/440 MHz radio and accessories.

MFJ's *MightyLites*™ are so light and small you can carry them in the palm of your hand! Take them with you anywhere.

MFJ's 25 Amp *MightyLite*™ weighs just 3.7 lbs. -- that's *5 times lighter* than an equivalent conventional power supply. MFJ's 45 Amp is even more dramatic -- *8 times lighter* and weighs just 5.5 pounds!

No RF hash!

These babies are clean . . . Your buddies won't hear *any* RF hash on your signal! *None* in your receiver either!

Some competing switching power supplies generate objectionable RF hash in your transmitted and received signal.

These super clean MFJ *MightyLites*™ meet all FCC Class B regulations.

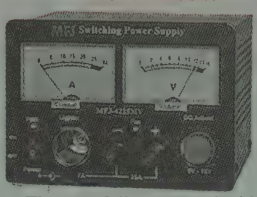
Low Ripple . . . Highly Regulated

Less than 35 mV peak-to-peak ripple under 25 or 45 amp full load. Load regulation is better than 1.5% under full load.

Fully Protected

You won't burn up our power supplies!

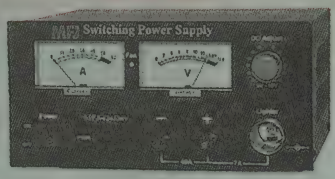
No RF Hash!



MFJ-4225MV
25 Amp
$149.95
Ship Code B

MFJ-4245MV
45 Amp
$199.95
Ship Code B

No RF Hash!



They are fully protected with Over Voltage and Over Current protection circuits.

Worldwide Versatility

MFJ *MightyLites*™ can be used anywhere in the world! They have switchable AC input voltage and work from 85 to 135 VAC or 170 to 260 VAC. Replaceable fuse.

MightyLites™ . . . Mighty Features

MFJ *MightyLites*™ feature a front-panel voltage control. It lets you vary the output voltage from 9 to 15 Volts DC and gives you a highly regulated voltage output.

You get an easy access front-panel with five-way binding posts for heavy duty use and a cigarette lighter socket for mobile accessories. MFJ-4245MV has two sets of quick-connects on the rear for accessories.

Large 3 inch dual meters are brightly illuminated to make it easy to monitor load voltage and current.

A whisper quiet internal fan efficiently cools your power supply for long life.

Two models to choose from . . .

MFJ-4225MV, $149.95. 25 Amps maximum or 22 Amps continuous. Weighs 3.7 pounds. Measures 5¾Wx4½Hx6D in.

MFJ-4245MV, $199.95. 45 Amps maximum or 40 Amps continuous. Weighs 5.5 pounds. Measures 7½Wx4¾Hx9D in.

MFJ's 1 year *No Matter What*™ warranty.

MFJ *Super Compact MightyLite*™ 25 Amp Switching Power Supply

New! **MFJ-4125** is like the popular MFJ-4225 MV but much smaller and doesn't have meters or the cigarette lighter socket.

MFJ-4125 features 5-way binding posts for high current radio connections and a pair of speaker type push-on terminals for low current accessories.

This Super light and compact supply weighs only 3.5 lbs. and measures an unbelievable 5½Wx2½Hx5¾D inches.

MFJ-4125
25 Amp
$109.95
Ship Code A

No Hash!

It features super protection modes such as Over Voltage Protection and Over Current Protection. Has a whisper quiet internal cooling fan that generates a tremendous amount of air flow to help keep components cool.

MFJ-4125 has switchable AC input voltage. 110 VAC at 47-62 Hz and 220 VAC at 47-63 Hz. Super regulation. Works with AC input 85-135 VAC or 170-260 VAC.

MFJ 30/22/12 Amp Regulated DC Power Supplies

MFJ's heavy duty conventional power supply is excellent for powering HF or 2 Meter/440 MHz transceiver/accessories.

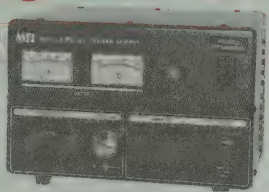
A massive 19.2 pound transformer makes this power supply super heavy duty! It delivers 35 amps maximum and 30 amps continuous without even flexing its muscles. Plugs into any 110 VAC wall outlet.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 30 mV. *No RF hash* -- it's super clean!

Fully protected -- has over voltage protection, fold back short circuit protection and over-temperature protection.

You get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8 VDC. A pair of front-panel meters let you monitor voltage and current.

MFJ-4035MV
$149.95
Ship Code F

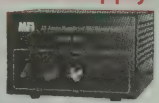


Three sets of output terminals include a pair of heavy duty five-way binding posts for HF/VHF radios, two pairs of quick-connects for accessories and a covered cigarette lighter socket for mobile accessories.

A front-panel fuse holder makes fuse replacement easy. Whisper quiet fan speed increases as load current increases -- keeps components cool. 9½Wx6Hx9¾D inches.

MFJ 22/20 Amp Power Supply

MFJ-4322, $99.95 delivers 22 Amps surge and 20 Amps continuous at 13.8 VDC. Its massive transformer, heat-sink and heavy duty construction weigh over 19 pounds. 8Wx4¾Hx11¾D inches.



MFJ 12/10 Amp Power Supply

MFJ-4312, $69.95 delivers 12 Amps surge and 10 Amps continuous at 13.8 VDC. It weighs over 13½ pounds. 8Wx4¾Hx10¼D in.

MFJ *High Current* Multiple DC Power Outlets

MFJ-1118
$74.95
Ship Code A

MFJ-1118, $74.95. Lets you power two HF and/or VHF transceivers and six or more accessories from your transceiver's main 12 VDC supply.

MFJ-1116
$49.95
Ship Code A

Two pairs of super heavy duty 30 amp 5-way binding posts connect your transceivers. Each pair is fused and RF bypassed.

MFJ-1112
$34.95
Ship Code A

Handles 35 Amps total.Six pairs of heavy duty, RF bypassed 5-way binding posts let you power your accessories. They handle 15 Amps total, are protected by a master fuse and have an ON/OFF switch with "ON" LED indicator.

MFJ-1117
$54.95
Ship Code A

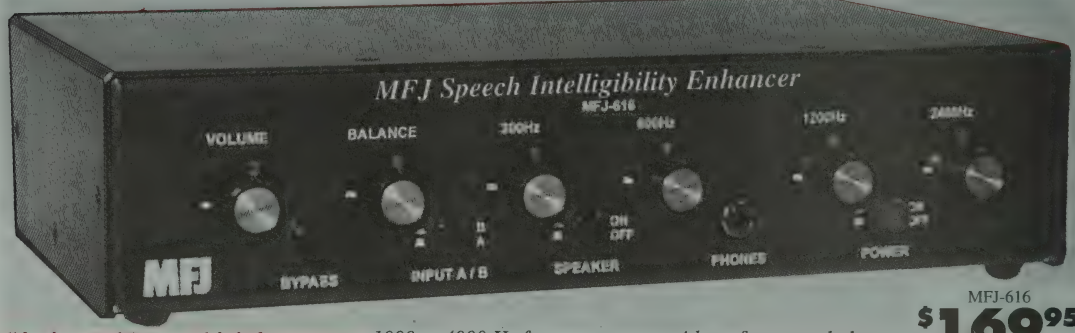
Built-in 0-25 VDC voltmeter. Six feet super heavy duty eight gauge color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Heavy duty aluminum construction. 12½x2¾x2½ inches.

New! **MFJ-1117, $54.95.** For powering four HF/VHF radios (two at 35 Amps each and two at 35 Amps combined) simultaneously. Tiny 8x2x3 inches.

MFJ-1116, $49.95. Similar to MFJ-1118. No 30 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total.

MFJ-1112, $34.95. Similar to MFJ-1116. No on/off switch, LED, meter, fuse.

MFJ Speech Intelligibility Enhancer™ gave me back my Ham Radio hobby



MFJ-616
$169.95
Ship Code B

"As I got older, my high frequency hearing loss was destroying my ham radio for me . . ."

-- Martin F. Jue, K5FLU, President and Founder MFJ Enterprises, Inc.

I know I'm not the only ham who can't understand all the speech in a QSO caused by high frequency hearing loss.

I developed a solution that I want to share with my fellow hams.

I almost gave up my ham radio hobby

I have been a passionate ham radio operator for over 40 years ever since I was a teenager. I loved every minute of it. Still do, but I almost had to give it up.

As I grew older (I'm 56 now) I found myself asking "*What did you say?*" so often it got downright embarrassing. I can hear pretty good most of the time. I just can't always understand what people are saying and my left ear is weaker than my right ear.

It got to where I was having trouble carrying on QSOs. I could hear, but I just couldn't quite make out all the words.

My hearing problem almost put a stop to my lifelong hobby.

There was no way I was going to give up ham radio . . .

Research showed me what to do

I searched the literature and spoke to hearing and speech experts.

According to their research on the intelligibility of speech in hearing English words:

1. The frequencies important for speech intelligibility are the consonant sounds from 500 to 4000 Hz. They contribute 83% of word intelligibility.

Frequencies from 500 to 1000 Hz contributes 35% of word intelligibility and 35% of sound energy.

Frequencies from 1000 to 4000 Hz contributes *48% of intelligibility* but has *only 4% of sound energy!*

2. In contrast, frequencies from 125 to 500 Hz contributes 55% of sound energy but only 4% to word intelligibility.

In other words, nearly half the speech intelligibility is contained in 1000 to 4000 Hz frequency range with only 4% of the speech sound energy.

On the other hand, the low frequencies 125 to 500 Hz have most of the speech energy but contribute very little to intelligibility.

How I improved my ability to hear and understand QSOs

The research showed me what to do.

First, drastically increase the speech energy above 500 Hz where 83% of intelligibility is concentrated.

Second, drastically reduce the speech energy below 500 Hz that contributes only 4% of intelligibility.

Amateur radio communications limit audio to about 300 to 2700 Hz.

I split the audio band into four overlapping octave ranges centered at 300, 600, 1200, 2400 Hz.

I could boost or cut each range by nearly 20 db to give me full control. This let me maximize speech intelligibility for most kinds of frequency loss.

My left ear is weaker than my right ear so I split the output audio into left and right channels with separate 2½ watt amplifiers. A balance control lets me equalize the perceived loudness to each ear. *Now both ears help in improving speech intelligibility!*

I couldn't believe my ears!

I built one and hooked it to my rig.

I boosted the high frequencies, cut the low frequencies, set the volume and adjusted the balanced control so I could hear each side equally loud.

I couldn't believe my ears! Speech that I could hear but barely understand before was now highly understandable. I got my ham radio back!

With this concept, you'll *understand* QSOs better and enjoy ragchewing and contesting more, even if you don't have high frequency hearing loss.

It helped me so much I wanted to share this with my fellow hams

I developed this into an accessory that any ham can use.

I made it immune to RFI, added a front panel phone jack, on/off speaker switch, two selectable transceiver inputs, a bypass switch for in/out comparison and built it into 10Wx2½Hx6D inch aluminum enclosure. Needs 12 VDC.

Other Uses

Replace your rig's audio section for superb audio. Eliminate hum, buzzes, poor frequency response, low audio power.

Works with SSB, FM, AM, CW -- any voice mode. Use any rig -- ham, marine, aircraft, CB. Use for PA systems, internet phone, radio talk shows.

MFJ-616 Accessories

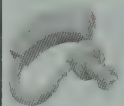
MFJ-392, $19.95. Matching high performance communication headphones.

MFJ-281, $12.95. Mylar cone speaker emphasizes 600-4000 Hz for crystal clear speech fidelity. Requires two.

MFJ-1316, $19.95. For 110 VAC operation. Provides 12 VDC/1.5 Amps.

MFJ-72, $58.80. *All-in-one MFJ-616 Accessory Pack.* Includes MFJ-392 headphones, two MFJ-281 speakers and MFJ-1316 power supply. ***Save $7!***

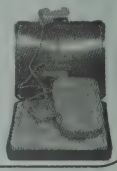
MFJ CyberEAR™!



MFJ-388
$29.95
Ship Code A

Tiny powerful MFJ *CyberEar*™ plugs in and loops over ear -- captures and amplifies sounds by 12 dB! Extends your hearing range, helps you hear every word at hamfests and club talks -- even if you're on the back row! Great for eyeball QSOs. Volume control, on/off switch. For left or right ear. 3 interchangeable ear plugs. Flesh color -- hardly noticeable. Super lightweight -- 10 grams with battery! Includes batteries. Hear even better -- buy one for each ear! 30 day money back if not absolutely delighted. Not a hearing aid.

MFJ-389, $59.95. ***Super CyberEAR***™. Hear everything! Capture and amplify sounds up to 50 dB! Left or right ear plugs, volume control, extremely small. Not a hearing aid.



MFJ *tunable* Super DSP filter

Only MFJ gives you tunable and programmable "brick wall" DSP Filters

MFJ's *tunable* super DSP filter automatically eliminates heterodynes, reduces noise and interference *simultaneously* on SSB, AM, CW, packet, AMTOR, PACTOR, RTTY, SSTV, WeFAX, FAX, weak signal VHF, EME, satellite.

You get MFJ's *tunable* FIR linear phase filters that minimize ringing, prevent data errors and have "brick wall" filter response with up to 57 dB attenuation 75 Hz away.

***Only* MFJ gives you 5 *tunable* DSP filters. You can tune each lowpass, highpass, notch, and bandpass filter including optimized SSB and CW filters. You can *vary* the bandwidth to pinpoint and eliminate interference.**

***Only* MFJ gives you 5 *factory* pre-set filters and 10 *programmable* pre-set filters that you can customize. Instantly remove QRM with a turn of a switch!**

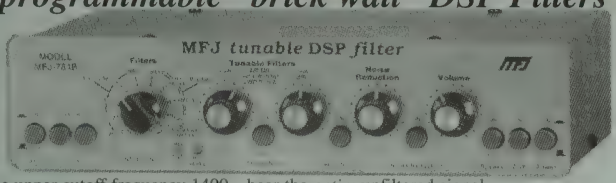
MFJ's *automatic notch* filter searches for and eliminates *multiple* heterodynes.

You also get MFJ's advanced *adaptive noise reduction*. It silences background noise and QRN so much that SSB signals sound like FM.

The *automatic* notch and *adaptive* noise reduction can be used with *all* relevant tunable pre-set filters.

***Automatic gain control* (AGC) keeps audio level constant during signal fade.**

U.S. Patent D374,010
MFJ-784B
$249.95
Ship Code B



Tunable bandpass filters

Narrow band signals like CW and RTTY jump out of QRM when you switch in MFJ's exclusive *tunable* FIR bandpass filters.

You can tune the center frequency from 300 to 3400 Hz, and vary the bandwidth from 30 Hz to 2100 Hz -- from super-tight CW filters to wide razor-sharp Data filters.

You can use two tunable filters together. For example, tune one to mark, one to space and set bandwidth tight for a super sharp RTTY filter.

Tunable highpass/lowpass filters

You can tune the lower cutoff frequency 200 to 2200 Hz and the upper cutoff frequency 1400 to 3400 Hz. This lets you create custom filters for voice, data and other modes.

Signals just 75 Hz away literally disappear -- they are reduced 57 dB!

Automatic notch filter

MFJ's automatic notch filter searches for and eliminates multiple heterodynes in milliseconds. It's so fast, that even *interfering* CW and RTTY signals can also be eliminated.

You can *selectively* remove unwanted tones using the two *manually tunable* notch filters -- an MFJ exclusive. Knock out unwanted CW stations while you're on CW.

Adaptive Noise Reduction

Noise reduction works in all filter modes and on all random noise -- white noise, static, impulse, ignition noise, power line noise, hiss.

The LMS algorithm gives you up to 20 dB of noise reduction. Noise reduction is adjustable to prevent signal distortion.

15 *pre-set* filters -- factory set or you custom program

You can select from 15 *pre-set* filters. Use for SSB, AM, CW, packet, AMTOR, PACTOR, RTTY, SSTV, WeFAX, FAX or any mode.

If you don't like our pre-set filters, you can program your own -- an MFJ exclusive! Save center frequency/bandwidth, lowpass/highpass cutoffs, auto/manual notch, noise reduction -- all filter settings -- in 10 programmable filters.

Plus more . . .

A push-button bypasses your filter -- lets you hear the *entire* unfiltered signal.

2½ Watt amplifier, volume control, input level control, speaker jack, PTT sense line, line level output. 9½x2½x6 inches.

Plugs between your transceiver or receiver and external speaker or headphones. use 12 VDC or 110 VAC with MFJ-1315, $14.95. Cable Pack, MFJ-5184, $7.95, includes receiver cable, DC cable, 2 open-end TNC cables.

New Features

MFJ's exclusive *tunable Spotting Tone*™ -- accurately tunes even the narrowest CW filter.

MFJ's exclusive *Adaptive Tuning*™ -- tuning rate automatically becomes finer as you narrow bandwidth -- makes narrow filters easy-to-use.

MFJ's exclusive *FilterTalk*™ -- sends precise filter settings in Morse code.

Has automatic notch with variable aggressiveness, new quieter 2½ Watt audio amplifier, new speaker switch keeps phones always active.

Manual and automatic notch can be used together. Noise reduction, automatic notch and custom filter you saved in memory is selected.

You get an accurate easy-to-use input level indicator, improved manual notch in the CW mode, adjustable line level output, more Mark-Space frequencies and baud rates for data filters and automatic bypass during transmit for monitoring CW sidetone, voice or data by sensing the PTT line.

60 dB Null *wipes out* noise and interference

MFJ-1026
$179.95
Ship code A

Wipe out noise and interference *before* it gets into your receiver with a 60 dB null!

Eliminate all types of noise -- severe power line noise from arcing transformers and insulators, fluorescent lamps, light dimmers, touch controlled lamps, computers, TV birdies, lightning crashes from distant thunderstorms, electric drills, motors, industrial processes . . .

It's *more effective* than a noise blanker because interference much stronger than your desired signal can be completely removed without affecting your signal.

It works on *all modes* -- SSB, AM, CW, FM -- and frequences from BCB to lower VHF.

You can null out strong QRM on top of weak rare DX and then work him! You can null out a strong local ham or AM broadcast station to prevent your receiver from overloading.

Use the MFJ-1026 as an *adjustable phasing network*. You can combine two antennas to give you various directional patterns. You can null out a strong interfering signal or peak a weak signal at a push of a button.

Easy-to-use! Plugs between transmitting antenna and transceiver. To null, adjust amplitude and phase controls for minimum S-meter reading or lowest noise. To peak, push reverse button. Use built-in active antenna or an external one. MFJ's exclusive *Constant Amplitude Phase Control*™ makes nulling easy.

RF sense T/R switch automatically bypasses your transceiver when you transmit. Adjustable delay time. Uses 12 VDC or 110 VAC with MFJ-1312B, $14.95. 6½x1½x6¼ inches.

MFJ-1025, $159.95. Like MFJ-1026 less built-in active antenna, use external antenna.

Add DSP to any Multimode

MFJ-781
$129.95
Ship Code A

Add "brick wall" DSP filtering to any TNC or multi-mode data controller. Copy signals buried in noise and QRM.

Under severe QRM, DSP greatly improves copy of Packet, AMTOR, PACTOR, GTOR, Clover, RTTY, SSTV, WeFAX, FAX, CW -- nearly any digital mode. Automatic gain control, On/Off Bypass switch. Plugs between transceiver and multi-mode. Uses 10-16 VDC or 110 VAC with MFJ-1312B, $14.95. 4½x2½x5 in.

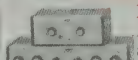
DSP for your MFJ-1278/B

MFJ-780
$99.95
Ship Code A

Plug a MFJ-780 "brick wall" DSP filter into your MFJ-1278/B multi-mode and you won't believe your eyes when you see solid copy from signals completely buried in QRM!

MFJ-1278/B automatically selects the correct DSP filter for Packet, AMTOR, Pactor, RTTY, ASCII, FAX, Color SSTV, Navtex or CW. Plug in a MFJ-780 and copy signals that other multi-modes can't. *Some soldering is required for this plug-in filter.*

MFJ's SSB/CW Audio Filters



MFJ-752C, $99.95. (left, bottom) All mode dual tunable filter has variable bandwidth 40 Hz to almost flat, eliminates noise and heterodynes notch depth to 70 dB, inputs for two rigs, switch selectable, noise limiter, plus more. Use 9-18 VDC or 110 VAC with MFJ-1312B, $14.95. 10x2x6 inches.

MFJ-722, $79.95. SSB/CW tunable 70 dB notch filter.

MFJ-751B, $69.95. Zero in SSB/CW with tunable peak and notch filters. 1¾x4¾x5 in. Tune 300-3000 Hz. Vary bandwidth 80 Hz to nearly flat. 50 dB notch. 12 VDC at 300 mA.

NEW! *Contest* Voice Keyer

MFJ-434
$179.95
Ship Code A

Let this *new* microprocessor controlled MFJ *Contest Voice Keyer*™ call CQ, send your call and do contest exchanges for you in your own natural voice!

Store frequently used phrases like "CQ Contest this is AA5MT", "You're 59" . . . "Qth is Mississippi" and more! Contest by pressing a few buttons and save your voice.

You can record and play back five natural sounding messages in a total of 75 seconds. EEPROM technology keeps messages stored for up to 100 years -- no battery backup needed.

You can repeat messages continuously and vary the repeat delay from 3 to 500 seconds. Makes a great voice beacon and calling CQ is so easy.

A receive audio jack lets you record and play back off-the-air signals -- great help if you didn't get it right the first time! No more

"*Please repeat*".

A playing message can be halted by pressing the *Stop Button*, your PTT mic button or by your VOX PTT line. A closure to ground via remote control or computer can also halt messages.

Has jack for remote or computer control (using CT, NA or other program and its interface). Lets you select, play and cancel messages.

The MFJ-434 is transparent to your microphone -- your mic's audio characteristics do not change when your MFJ-434 is installed. Dual controls make it easy to tailor audio level to match your voice.

All audio lines are RF filtered to eliminate RFI, audio feedback and distortion. An audio isolation transformer totally eliminates hum and distortion caused by ground loops.

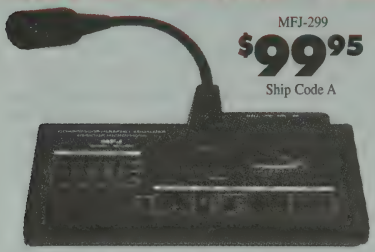
It's easy to use -- just plug in your 8 pin microphone cable and plug the MFJ-434 shielded cable into your transceiver's mic connector. Internal jumpers let you customize it to Kenwood, Icom, Yaesu, Alinco or Radio Shack rigs. Use your station or built-in microphone for recording.

Built-in speaker-amplifier lets you monitor stored messages. 3.5 mm speaker/headphone jack. SMT technology. Use 9 Volt battery, 9-15 VDC or 110 VAC with optional MFJ-1312B, $14.95. 6½Wx2½Hx6½D inches.

MFJ-73, $29.95. Remote Control Head with cable for MFJ-434.

MFJ Desk Mic/Ham station console

MFJ-299
$99.95
Ship Code A



A high-sensitivity ceramic microphone element (10.5 inches with *FlexNeck*™) bends and stretches to your most comfortable operating position. A fine mesh metal grill helps to eliminate background noise.

MFJ-299 has a high quality compressor amplifier with high, medium, and low selection switches. It always sends out a constant and optimum level without distortion, regardless of audio input level.

MFJ-299 is equipped with a built-in graphic equalizer with center frequencies of 270, 540, 1000 and 2000 Hz. Gives best audio quality for FM mode and max efficiency for SSB.

Has *On-Air* indicator and an output level volume control. *On-Air* blinks on and off when in receiving mode and will light up continuously when transmitting.

MFJ-299 is equipped with PTT momentary and PTT lock switches that allow you to switch between long one-sided QSOs and fast two-sided conversations.

The frequency up/down switches let you operate your transceiver at your desktop microphone. 4 function keys (CALL, VFO, MR, PF) are for Kenwood transceivers only.

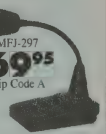
An output level meter lets you adjust the output level to not exceed 0 dB.

A revolutionary triple radio input socket makes it super easy to install for any model transceiver: Icom, Yaesu, Kenwood and compatible transceivers.

Built-in battery check circuit. Press power switch and the level meter will show battery condition with power voltage for a few seconds.

MFJ-297 Desk Mic

MFJ-297
$69.95
Ship Code A



MFJ-297 *speech frequency tailored microphone* cuts through noise and QRM. Switch for powerful SSB punch or full range broadcast quality FM/AM. Has *Silibant Sound Shield*™, momentary/locking PTT switch, On-Air LED, Frequency up/down button, output level control and more! **Compact** 4Wx1½H6D inches with 11 inch flexible boom. 1 lb. Use 2 "AA" batteries.

MFJ *Professional grade* Boom Mic Headphones

New!

MFJ-393
$59.95
Ship Code A

This *professional grade* MFJ Boom-Mic Headphones set is for contesting, DXing and traffic nets. *Comfort* designed leatherette padding lets you operate for hours at the rig.

Superb 3/4 inch thick padding on each ear and headband. MFJ-393 is so super lightweight, you won't even know they're there! Headband adjusts for perfect fit to keep out external noise.

Frequency response is enhnanced for communications to bring out speech fidelity you never knew existed. *Signals never sounded so clear!*

The flexible microphone boom lets you position the mic comfortably at an optimum distance to minimize silibant sounds.

MFJ's frequency tailored microphone element lets you bust through noise and QRM! 6 feet of cable lets you move about your ham station!

Even casual operators will appreciate the advantages of MFJ's superbly crafted Boom-Mic headphones for *hands-free* operating and DXing at an incredibly low MFJ price.

Order MFJ Pre-wired Adaptor Cables

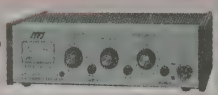
MFJ's pre-wired adaptor cables match transceivers with 8-pin round mic connector.

Order MFJ-393I for Icom, **MFJ-393Y** for YAESU, **MFJ-393K** for Kenwood, **$59.95 each.**

8 Pin Round Mic Plug - $15.95 each				*8 Pin Modular Mic Plug - $15.95 each*		
MFJ Desk Mic	**ICOM**	**Kenwood**	**YAESU**	**ICOM**	**Kenwood**	**YAESU**
MFJ-297	MFJ-5397I	MFJ-5397K	MFJ-5397Y	MFJ-5397MX	MFJ-5397MX	MFJ-5397MY
MFJ-299	MFJ-5397I	MFJ-5397K	MFJ-5399Y	MFJ-5397MX	MFJ-5397MX	MFJ-5397MX

MFJ Deluxe Hybrid Phone Patch

MFJ-624D
$129.95
Ship Code A

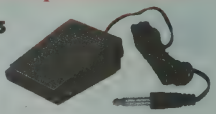


MFJ-624D *Deluxe Hybrid Phone Patch* gives you crisp, clear, hum-free audio, and that's what phone patching is all about. It's jumper selectable for Kenwood, Icom, Yaesu, and Alinco rigs with 8 pin mic connectors.

You can use either VOX or push-to-talk. RF pi-filters and PC board construction eliminates RF feedback. Use with virtually any rig. **Built-in** VU meter monitors phone line levels to prevent cross talk. Adjust null depth for maximum isolation between receiver and transmitter. Separate transmitter and receiver gain controls eliminate the need to readjust your rig after patching. **Has** *Null* control. Standard phone connection, RJ-11. Jacks for speaker, audio in and audio out. Measures 8x2x6 inches. Use 12 VDC, 9V battery or 110 VAC w/ MFJ-1312B, $14.95.

MFJ PTT Foot Operated Switch

MFJ-1709
$21.95
Ship Code A



Add the luxury of foot control PTT transceiver operation. MFJ-1709 keeps your hands free for logging, computer operation and tuning. Greatly reduces fatigue and improves your efficiency -- could be the difference between winning and losing a contest. 2½Wx3½Dx1¼H inches with non-skid pad foot pedal. 1/4 in. phone plug. Ten ft. cord.

MFJ Accessories for FT-817 and other QRP Transceivers

MFJ Walkabout Antenna covers 80 through 6 Meters

MFJ-1899T **$129.95** Ship Code A

Work DX walking about! This MFJ *Walkabout* antenna for the FT-817 and other QRP rigs covers all bands 80 Meters through 6 Meters including WARC bands.

Its ten section telescoping whip is 52 inches fully extended and is 7 inches when collapsed. The whip unscrews from the 12 inch base loading coil. It's ultra-compact for easy traveling. Handles 25 Watts.

You change bands by plugging the "wander lead" into the appropriate socket on the base coil. Fine tuning is done by adjusting the telescopic whip. Has BNC connector. Use adapter for SO-239.

MFJ Single Band Walkabout Antennas

MFJ-1806T **$29.95** Ship Code A

Highly efficient single band *Walkabout* antennas for the FT-817 and other QRP rigs let you work exciting DX *no matter where you are!*

Each 10-section telescoping whip is 51 inches fully extended and collapses to 5½ inches and screws into a base loading coil.

Handles 25 Watts. Has BNC connector. Use adapter for SO-239.

MFJ-1806T (6 Meters) $29.95.

MFJ-1810T(10M), **MFJ-1812T**(12M), **MFJ-1815T** (15M), **MFJ-1817T**(17M), **MFJ-1820T**(20M), **MFJ-1830T** (30M), $39.95 each.

MFJ-1840T (40 Meters), **MFJ-1880T** (80 Meters), $49.95 each.

Tiny 10 ounce Switching Power Supply for the Yaesu FT-817 and other QRP rigs

MFJ-4103 **$39.95** Ship Code A

This MFJ-4103 *Miniature Switching Power Supply* can deliver up to 40 Watts (13.8 VDC at 2.89 Amps) of reliable power anywhere in the world with *no RF hash!*

It's an incredibly tiny 4⅛x2⅛x1⅜ inches and weighs just 10 ounces including output power cord and connector.

It has an output DC cable with a standard MFJ coaxial DC power connector (2.1 mm ID, 5.5 mm OD) that fits most MFJ and other ham accessories and QRP rigs. Also included is a sturdy adapter cable for use with the Yaesu FT-817.

The MFJ-4103 has excellent specs and outperforms all other switching power supplies made for the FT-817. It's RFI-free with no RF hash. It's perfect for QRP rigs needing up to 2.89 Amps.

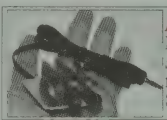
It works for input voltages 100-240 VAC and power line frequencies 47-63 HZ. Use the MFJ-4103 almost anywhere in the world by plugging in an AC power cord with an appropriate wall plug for that country (not included, laptop computer AC cord recommended).

Overvoltage, overcurrent, and overtemperature protected.

Has excellent 1% line and 5% load regulation and 1% peak to peak ripple and noise. Operating temperature is 0-40 degrees C. Mean time between failure is 100,000 hours at full load at 25 degree C ambient. Meets FCC part 15 class B, UL 1950 and CSA 22.2.

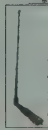
MFJ QRP Wattmeter/Dummy Load

MFJ-840, $19.95. Accurately checks the power output of your FT-817 and other QRP rigs into a 50 Ohm dummy load. 5 Watts full scale. Covers 160-2 Meters. Accurately checks battery charge. BNC connector.



MFJ miniature *Travel Iambic Paddle*

MFJ-561, $19.95. 1¾Wx1¾Dx¾H in. *Full-size* feel for smooth, easy CW. Precision formed from resilient phosphorous bronze. Stainless steel base. 4 ft. cord, 3.5 mm plug.



MFJ 2 Meter/440 MHz FT-817 Antenna

MFJ-1717PL, $24.95, foldover dual band flexi-duck 16½" antenna with quality PL-259 connector. Hearty 2.15 dBi gain on 440 MHz and full size 1/4 Wave on 2 Meters. Factory set for minimum SWR. No more coax, finding a place for a magnet or getting an outside antenna. High-Q, low loss construction.

PL-259-to-BNC Female Right Angle Adaptor

MFJ-7703, $6.95. Sturdy, adapter for your FT-817 and multimode HF antennas like MFJ-1899T, above. Quality connectors on both ends with re-inforced elbow for less stress on radio connectors.

MFJ-1262 Microphone Control Center

This new MFJ-1262 *Microphone Control Center* lets you switch between any two microphones by pushing a button.

You can switch between a boom mic/headphone and a desk or hand mic, between a hi-fi ragchewing mic and a hard hitting DX mic or between a hand mic or desk mic.

You can also convert any favorite 8-pin microphone for use with any radio.

PTT foot switch frees your hands for contesting and DXing

By plugging in an external PTT foot switch you can free your hands for contesting and DXing. Or you can let a computer or voice keyer control the PTT line for automated operation.

Perfect for Boom-Mic/Headset

Switching between your desk or hand mic and your Boom Mic/Headset is quick and easy.

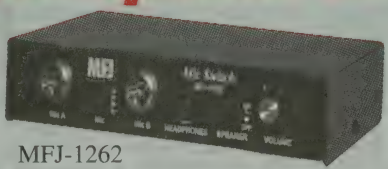
You can plug in an external foot or hand operated PTT switch.

You can also plug in your boom-mic *headphones.*

The MFJ-1262 has a built-in headphone volume control so you won't have to readjust your rig's volume when you switch the speaker on.

Keep Your Headphones On

During a contest or field day when several operators are busy, everyone can use a



MFJ-1262 **$79.95** Ship Code A

boom mic/headset or a pair of headphones and operate privately.

When you want others to hear what you're hearing in your headphones, you can push a button and turn on an external speaker (like the MFJ-281, $12.95) that you plug into the MFJ-1262. The headphones are always active. A push button turns the speaker on or off.

Switch from Ragchewing to DXing

Instantly switch from a wide range hi-fi microphone when ragchewing with your buddies to a hard hitting DX microphone when you suddenly hear some rare DX.

Works with any radio

The MFJ-1262 works with any radio - - Kenwood, Yaesu, Icom, Alinco and compatible transceivers - - using an 8-pin round or modular microphone jack. You set internal jumpers to configure the MFJ-1262 for your radio - - it never becomes obsolete!

Order *MFJ-1262* for 8-pin round mic plug or *MFJ-1262M* for 8-pin modular mic plug.

Converts any 8-pin microphone to work with any 8-pin radio

Say you have a favorite Kenwood microphone and want to use it on your new Yaesu radio.

All you need to do is plug your Kenwood microphone into the MFJ-1262 and set the internal jumpers to configure it for your new Yaesu radio.

No More Fuss

The MFJ-1262 takes away all the fuss - - no more plugging and unplugging to change microphones - - just push a button.

It's perfect for contests, field day or in a confined room where instant switching between a high performance boom mic/headset and a hand or desk microphone may be needed.

Super Easy-to-Use

Just unplug your microphone from your transceiver and plug it into the MFJ-1262. Plug in a second microphone if desired.

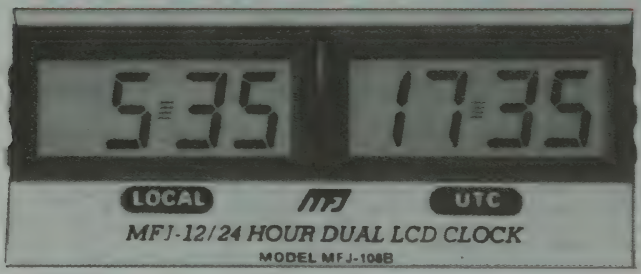
Then plug the MFJ-1262 cable into your transceiver microphone input.

Push the button to select your desired microphone.

Sleek and Compact

It stays out of your way. The sleek and compact MFJ-1262 is so tiny it can sit on top of other equipment or get tucked away. Measures 6Wx1½H x5D in. Has 3 ft. of 8-pin cable to go to radio microphone input.

MFJ 24/12 Hour Clocks



Shown actual size

Dual 24/12 hour LCD Clock

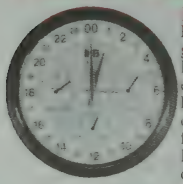
MFJ-108B

$19.95

Ship code A

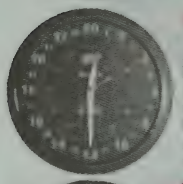
MFJ-108B dual clock has separate 24 hour and 12 hour displays. Lets you read both UTC and local time simultaneously. Features huge high-contrast 5/8 inch LCD numerals that makes it easy to read across the room. Mounted in solid brushed aluminum frame with sloped face for easy viewing. Synchronizable to WWV for split-second timing. Quartz controlled for excellent accuracy. Long life battery included. 4½Wx1D x2H in. MFJ's famous *No Matter What*™ one year limited warranty. *$6 s&h.*

DXer's Wall Clocks

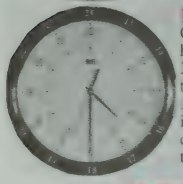


MFJ-125, $29.95. 12 inch DXer's Quartz wall clock gives 24 hour time plus more. Has three smaller independently settable dials for 12 hour time, day of week and date. No more day/date confusion when logging DX! Highly visible, easy-to-read dials! Has Seconds hand.

MFJ-115, $24.95. Set this 24 hour clock to UTC/ GMT and you can determine the time in any time zone of the world at any time of the day. Premier world cities encircle its colorful world map face to indicate time zone. 12 inch face is easy to see across room. Has Seconds hand.

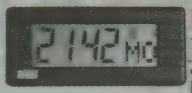


MFJ-105C, $19.95. *World's most popular ham radio wall clock!* True 24 hour Quartz movement. Huge 12 inch black face with large white numerals give excellent visibility across room. Attractive gold colored hour, minute and seconds hands.

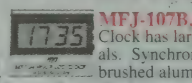


MFJ-126, $24.95. 12 hour Quartz movement gives 12 hour time on inner dial (for XYL) and 1200 to 2400 hour time on its outer dial (for you). Attractive clean, white face is highly visible. Real glass cover! Handsome hunter green trim. Has seconds hand.

Hi-Contrast LCD Clocks

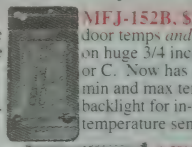


MFJ-118, $24.95. 24/12 hour clock has jumbo 1⅛ inch LCD digits. Displays 24 or 12 hour time, year, month, date, and day of week. 100 year full calendar. Hang on wall or desk mount. 5¼Wx2½Hx½D in.

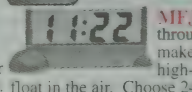


MFJ-107B, $9.95. 24 hour UTC Clock has large 5/8 inch LCD numerals. Synchronizable to WWV. Solid brushed aluminum frame lasts for years. Long life battery included. 2¼x1x2 in.

MFJ-112, $24.95. 24/12 Hour World Map LCD Clock displays time in *every time zone in the world.* Selected time zone flashes on LCD world map. Displays 24 or 12 hours, minutes, seconds, year, month, date, day, time zones, cities. Single button accesses pre-set second time zone. Alarms for two time zones. Adjusts for daylight savings time.

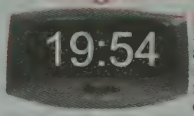


MFJ-152B, $24.95. Indoor *and* Outdoor temps *and* 24/12 time *at-a-glance* on huge 3/4 inch LCD digits! Choose F or C. Now has seconds display! Stores min and max temperature readings. Has backlight for in-the-dark viewing. outdoor temperature sensor with ten foot cable.

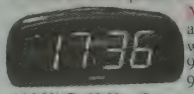


MFJ-132/134, $34.95. See-through, transparent display makes these huge 1" inch high-contrast LCD time digits float in the air. Choose 24 hour (MFJ-134) or 12 hour (MFJ-132) time formats. MFJ-132/134 has a loud alarm, snooze and operates on two "AAA" batteries. Compact 9Wx3½H in. Super attractive *space-age* designed cabinet (perfect for trekkies!).

Bright LED Clocks



MFJ-117, $59.95. Giant 2.5 inch super bright LEDs are nearly the width of an HT -- you can see them from across the street, day or night! 12 or 24 hours. Wall or desk mount. 12Wx7½H inches. Uses 9 Volt battery for time backup. Convenient hour/minute set buttons on front panel. Uses 110 VAC, 60 Hz.



MFJ-113, $19.95. Switchabel 12/24 hour display with *HUGE* 1.8" red LEDs, 9 minute ID timer, alarm, 9V battery back-up. Use 110 VAC, 60 Hz. Super compact 11Hx9Wx2½D in.

MFJ-116DC, $19.95. 12 VDC, plugs in cigarette lighter. *Great for motorhomes and truckers!* 12 hour only. Attractive black cabinet.

GIANT 24" Wall Clock

MFJ-129, $69.95. This is the largest clock in ham radio! This huge, massive 24 inch quartz accurate wall clock will totally dominate any room you put it in! Has 24 hour inner dial and 12 hour outer dial. Glass cover, hard black plastic outer ring.

Ohm's Law Wall Clock

MFJ-127, $24.95. Fast, easy calculation for voltage, amperage, resistance, or wattage for electronic circuits. Great for electricians, techs, engineers, students and amateurs! Easy-to-read, Quartz movement, 8½" diameter.

Use Code A for all MFJ Clock shipping.

MFJ Wireless Weather Station

MFJ-194

$399.95

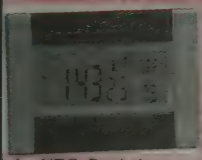
Ship Code B

Displays . . . Wind, Temperature, Humidity, Rainfall, Pressure. *Has* . . . Weather forecasting icons -- (sunny, cloudy with sunny intervals, cloudy, rainy), compass display for wind speed, wind direction and wind direction change, wind chill temperature, air pressure and air pressure tendency. *Includes* . . . graphic display of air pressure changes within last 24 hours, rainfall recording -- (total, last 24 hours, last hour), dew point, all min/max recordings with date and time. *Also has* . . . 39 programmable visual and audible alarms (for example: frost, air pressure, temperature, unstable or stormy weather), solar powered outdoor wind, temperature, humidity and rain sensors with 433 MHz radio transmitter, battery powered indoor temperature, humidity, pressure sensors with 433 MHz transmitter, battery operated receiver -- displays all current information at-a-glance on large high contrast LCD display. *More* . . . receive signals from up to 9 temperature/humidity sending units (two included, others optional), all outdoor sensors are solar powered with self-charging battery backup, FCC approved wireless sensors transmit over 100 ft. at 433 MHz. *Options* . . . **MFJ-194PC, $399.95.** Deluxe Weather station with PC interface. **MFJ-194RS, $229.95.** RS-232 Interface for MFJ-194.

MFJ ATOMIC 24/12 HOUR CLOCKS

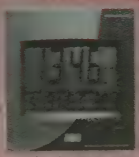
• Automatically receive WWVB radio signal from National Institute of Standards and Technology in Ft. Collins, Colorado for absolute millisecond accuracy • Choose 24/12 Hour time format or simultaneous dual times • Choose from our huge selection of wall and desk mount clocks

Atomic 24/12 Hour LCD Desk Clock



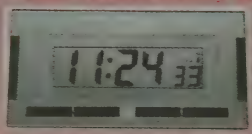
MFJ-124, $24.95. *Compact radio-controlled* 24/12 hour switchable, LCD Desk Clock. Auto daylight savings time can be turned off, when setting clock for UTC. Dual alarm, snooze and bright backlight. Month and date display, indoor temperature (14F-122F). Time zone map display. Use 2 AAA batteries. Five button operation. Attractive black and silver cabinet.

ATOMIC Informanon Control Center



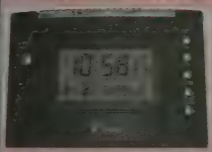
MFJ-130RC, $39.95. This 24/12 hour wall or desk mount atomic clock has got all the information you need at a single glance! Auto daylight savings time can be turned off, when setting clock for UTC. Metallic blue/silver colored clock (8¾x9 in.) has *easy-to-read* LCD display. Time digits are 2¼ inches tall. Seconds display. Month, date, day and indoor temp on bottom LCD. Easy-to-program. Celsius or Fahrenheit for temps. Use two AA batteries.

Solar Powered Eternity Atomic Clock



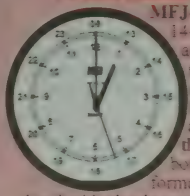
MFJ-123, $79.95. MFJ's *exclusive* solar powered *Eternity Atomic Clock*™ works for an *"eternity"*! No need for batteries or to set time! Receives WWVB signal. Whopping LCD display is 2 inches tall and 6¾ inch wide. Choose 24 or 12 hour time format. Huge running seconds display. Calendar mode. Wall or desk mount. 10¾Wx6Hx¾in.

ATOMIC 24/12 LCD Desk Clock



MFJ-122, $19.95. *Lowest priced atomic clock in ham radio!* And loaded with fantastic features! 24/12 switchable, seconds display, date/day, snooze/timer, bright green backlight, US time zone map display, dual crescendo alarms. Black with silver buttons. Operates on two AAA batteries. Super tiny -- pocket camera size, plus more!

14-inch Atomic 24/12 Wall Clock



MFJ-128, $59.95. This huge 14-inch diameter atomic analog wall clock can be seen from across the room! It'll liven up any humdrum wall and it automatically receives the WWVB signal. Has both 12 and 24 hour time format displays. Has second hand with clearly marked seconds display points. Attractive, clean white glass face is highly visible. Black, rugged plastic outer rim.

Dual Time Zone Atomic Clock

MFJ-121, $69.95. Read both UTC and local time *at-a-glance* with this MFJ-121 dual atomic clock. Displays 24/12 hour time simultaneously. Mounted in a handsome black, hard-plastic frame, the MFJ-121 features HUGE, easy-to-see 2" tall by 1½" wide LCD numerals and also has seconds display. 10¾Wx8Hx¾D inches. Wall or desk mount. Operates on two AAA batteries.

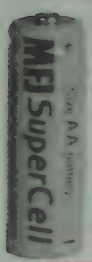
MFJ 24/12 Hour Ham Radio Wrist Watches

A. MFJ-182, $19.95. This MFJ *Dual Time Ham Radio Wrist Watch* is a high-tech instrument displaying two time zones simultaneously. The self-governing movements can be independently set according to the user's preference. Quartz accuracy, long-life button battery operation (included), synchronizable with WWV. Stainless steel adjustable wrist band. Beautiful white face and silver outer rim and band.

B. MFJ-184, $19.95. MFJs *World Time Ham Radio Wrist Watch* displays 2 time zones on the same dial. 24/12 hour time are on the same dial! 12 hour hands are bio-luminescent for night-time viewing. Additional 24 hour hand gives you UTC time *at-a-glance!* Quartz accuracy, long-life battery, syncronizable with WWV, stainless steel adjustable wrist band. Brilliant blue face with red 24 hour points. Silver trim and band.

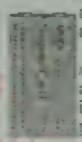
Super high capacity 1500 mAh Ni-MH AA batteries

These super Ni-MH "AA" batteries have twice the power of standard Ni-Cads!



$2.99 Each! Ship Code A

10 for $24.95



MFJ-92AA01, $2.99 each.
MFJ-92AA10, $24.95, 10 Pack.

MFJ's *super high capacity* Ni-MH "AA" batteries have twice the power of standard Nicads at about the same price! These MFJ 1500 mAh, 1.2 volt batteries greatly extend the operating time of your electronic device.

MFJ Ni-MH "AA" batteries have *no* detrimental memory effect that are the trademark of Ni-Cad batteries so you can use them to their full potential.

They are perfect for your MFJ-259B *SWR Analyzer*™ with its built-in battery charging circuit.

MFJ *SuperCell*™ AAA Batteries

MFJ-92AAA01, $2.49. AAA Ni-MH rechargeable batteries. 600 mAh, 1.2 volt batteries. **MFJ-92AAA04**, 4 pack AAA Ni-MH batteries, **$8.99**.

MFJ *SuperCell*™ 9 volt Battery

MFJ-929V, $9.95. 9 Volt *SuperCell*™ rechargeable Ni-MH battery. 160 mAh. Standard charge: 16 mA for 15 hours. Fast charge: 32 mA, 7.5 hours.

MFJ *POWERHaus*™ Ni-MH battery chargers for MFJ SuperCells™

A. MFJ-632 **$19.95** Ship Code A

B. MFJ-631 **$9.95** Ship Code A

B.

MFJ's new *POWER Haus*™ battery chargers are perfect for charging your MFJ or other brand Ni-MH or Ni-Cd rechargeable batteries.

MFJ-632, $19.95, charges "AA" or "AAA" Ni-MH or Ni-Cd Battery types. It has a 2 and 4 battery charging selection.

MFJ's *PowerHaus*™ battery chargers have Reverse Polarity Protection and a bright red LED indicator that shows battery charging status.

They're super versatile and easy-to-use. MFJ-632 has a removable dust cover and an AC 12 Volt, 800 mA wall adapter is included. MFJ-632 quick charges 2-4 "AA" or "AAA" Ni-MH or Ni-Cd rechargeable cells *in an hour or less -- only takes 1½ hours to fully charge 1,500 mAh AAs!*

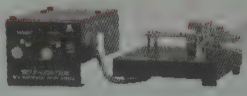
LED turns off when batteries are fully charged. Do not charge alkaline batteries.

MFJ-631, $9.95, charges 2-4 Ni-MH or Ni-Cd batteries in 14 hours by trickle charging. It charges only "AA" Ni-MH/Ni-Cd batteries. Has red charge status LED, removable dust cover and it plugs directly into the nearest AC wall outlet.

MFJ/*Curtis*/Bencher combo Keyer™

MFJ-422D **Best** **$164.95** of all Ship Code B CW worlds -- a deluxe *MFJ/Curtis* keyer™ in a compact package that fits right on the Bencher iambic paddle! Buy the combination or just the keyer for your Bencher or MFJ iambic paddles.

MFJ's most popular keyer is small in size, big in features. it gives you adjustable weight and tone and has front panel volume and speed controls (5-65 wpm). Has built-in dot-dash memories, speaker, sidetone



MFJ-422DX **$79.95** Ship Code A and automatic or semi-auto/tune modes.

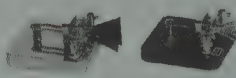
Keys solid state or tube transmitters. Fully shielded. Use 9 volt battery or 110 VAC with MFJ-1312B, $14.95.

The keyer mounts on the paddle base to form a small (4x2¼x4¼ inches) attractive combination that is a pleasure to look at and use. You can buy the combo or just the *MFJ/Curtis*™ Keyer (MFJ-422DX, $79.95)

to fit on your Bencher or MFJ-564 or MFJ-564B iambic paddles. See below.

BY-1, $109.95. Black Bencher paddle.
BY-2, $124.95. Chrome Bencher paddle.

MFJ Deluxe Iambic Paddles



MFJ-564 **$49.95** Ship Code B

- Full range adjustment in tension/contact spacing
- Self-adjusting nylon/steel needle bearings
- Machine frame, non-skid feet, heavy base
- **MFJ-564**, Chrome or **MFJ-564B**, Black.

MFJ *Pocket* CW Keyer

MFJ-403P **$69.95** Ship Code A

This new MFJ Travel Keyer is a full-featured CW keyer with a built-in Iambic paddle. **Ultra**-compact size (2¼Dx 3¼W x1H inches) is perfect for traveling or for home use with QRP or "big" rigs. Throw it in your briefcase along with your MFJ *QRP Cub*™ or other favorite rig on your next trip.

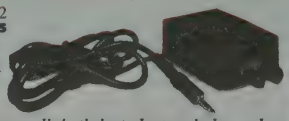
A built-in sidetone with LM386 audio amplifier, speaker and volume control makes monitoring your sending easy. Speed adjustable from 3 to 60 WPM. Sidetone pitch is adjustable 300 to 1000 Hz. Weight adjustable from 25% to 75%. Tune mode, RF proof, Battery Saver feature.

You can select a keyer mode to suit you - - Iambic mode A or B, fully automatic or semi-auto "bug" mode. Use 9 Volt battery, not incl.

MFJ-403, **$49.95.** MFJ ultra compact CW Travel keyer only.

Nano-size Keyer/Paddle

MFJ-402 **$59.95** Ship Code A



Ham radio's tiniest electronic keyer has built-in iambic paddle! It's a nano-size 2x3x1 inches and weighs just 3½ ounces!

Fully-enclosed iambic paddle has a *full-size* feel for smooth, easy CW. It's precision formed from resilient phosphorous bronze.

It's super easy-to-use. Just set one button and send one letter to change your keyer settings -- speed 5-65 WPM, weight 25%-75%, iambic mode A or B, normal or "bug" mode and reverse paddle.

Screwdriver adjustment lets you instantly change speed. Tune mode for tuning antenna tuner or transmitter. RF proof.

Has 4 foot cord with 3.5 mm plug. Keys nearly any QRP or QRO rig.

No on/off switch -- keyer turns off between dits! Battery lasts nearly shelf life.

MFJ *miniature* Travel Iambic Paddle

MFJ-561 **$19.95** Ship Code A

This *miniature*, lightweight Iambic paddle is just 1¾Wx1¾Dx¾H inches and weighs just 2½ ounces. Tiny enough to fit in an *Altoids*® tin (cord and all!) for protection.

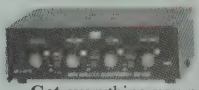
It's perfect for traveling or for home use with QRP or "big" rigs. Perfect companion for MFJ or other keyers. Great for any QRP or QRO rig!

The paddle is precision formed from special phosphorous bronze spring material with an A150 temper. This gives you an excellent feel so you can send smooth CW.

Mounted on rugged metal base with non-skid rubber feet. Has 4 foot cord and 3.5 mm plug -- ready to plug into keyer or rig!

MFJ-561K, $14.95. MFJ iambic paddle kit with instructions, cord, all hardware.

Deluxe MFJ Curtis Keyer™



MFJ-407D **$69.95** Ship Code A

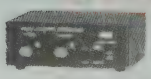
Get everything you need to send beautiful CW from this *Deluxe MFJ Cutris* Keyer™ -- easy access front panel controls, *all* keyer modes, dot-dash memories, jam-proof spacing, weight control, sidetone, built-in speaker and more.

Speed, weight, tone and volume controls. and tune, semi-auto and on/off switches are on the front panel.

You get dot-dash memory, self-completing dots and dashes, jam-proof spacing and instant start keying. Select Type A or Type B keying to match your sending style.

Has tune switch for tuning your transmitter or antenna tuner. RF proof. Built-in speaker for sidetone. Keys solid state and tube transmitters. Use 9 volt battery or 110 VAC with MFJ-1312B, $14.95. Attractive black cabinet measures 5¾x1¾x4¾ inches.

MFJ/Curtis *ECONO* Keyer™



MFJ-401D **$49.95** Ship Code A

MFJ-401D is the same as MFJ-407D except weight and tone controls are adjusted internally and doesn't have a tune switch. Use 9 volt battery or 110 VAC with MFJ-1312B, $14.95. Tiny 4x1¾x3¼ inch unit fits anywhere. *Great starter keyer!*

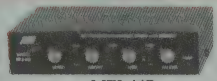
Curtis 8045ABM™ Keyer Chip

MFJ-8045ABM **$19.95** Ship Code A

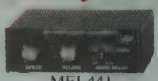
Features include: built-in 89 character memory, expandable non-volatiie memory, true sinewave side-tone with soft rise/fall times eliminate harsh keyclicks for beautiful sounding sidetone. Type A or B iambic keying, dot-dash memory, adjustable weight, tone and speed, automatic or semi-auto mode, low current drain.

MFJ *SlimLine*™ Electronic Keyers

MFJ-442 **$159.95** Ship Code B



MFJ-447 **$79.95** Ship Code A



MFJ-441 **$59.95** Ship Code A

Plug an iambic paddle into MFJ's new *Slim Line*™ electronic keyer. **Press** the dot paddle before a dash completes, MFJ's *Smart DotDash*™ will finish the dash, make a space and then the dot!

MFJ-447/442 has MFJ's 500 character non-volatile *MessageMemory*™. You can embed Message Loop, Extra Word Space, pause and serial number increments after each sending. LED blinks during programming and blinks faster for low memory.

All *SlimLine*™ keyers have speaker pitch and volume controls for sidetone and speed and weight controls. Speed is 5 to 65 words-per-minute. Pitch is 300 to 1000 Hz. Weight is 50 to 150 percent.

Select A or B keying. Self-completing dots and dashes. Semi-auto lets you make dashes manually for "bug" operation.

Use dual or single lever paddle. 1/4 inch jack for paddle.

Positive and Negative keying. 9V battery or 110 VAC with optional MFJ-1312B, $14.95.

MFJ-442, $159.95. *SlimLine*™ Keyer and MFJ paddle combo. Front panel speed, volume controls. **MFJ-442X, $89.95.** Keyer only. 4x1¾x2¾ inches. Fits on your Bencher or MFJ-564/B iambic paddle.

MFJ-447, $79.95. *SlimLine*™ Deluxe keyer is just 1¾ inches tall. Front panel speed, weight, tone, volume controls and message, semi-auto, tune, power buttons. Tune button keys transmitter. Jack for speaker/headphones.6¼x1¾x5".

MFJ-441, $59.95. *SlimLine*™ Econo Keyer. 4x1¾x3¼ inches. Has volatile 89 character *MessageMemory*™. Front panel speed/volume controls.

MFJ Millenium™ CW keyer

World's most powerful CW keyer has LCD readout . . . Menu-driven, super easy to use -- no instruction manual needed . . . packed full of features . . .

Is CW dead?

Not at MFJ!

While others neglect CW keyers, MFJ has developed the world's most powerful millenium keyer. It makes CW a pleasure for operators around the world.

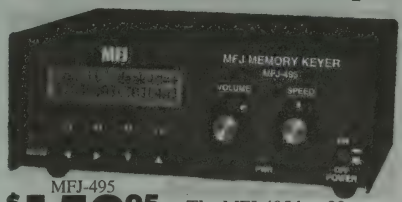
MFJ's menu driven LCD display makes it so easy to use, you don't need an instruction manual.

The MFJ-495 combines the latest millenium microprocessor technology with non-volatile EEPROM memory for a full featured, low cost, high reliability design.

You can send CW or load messages using a paddle, keyboard or computer serial port.

Easy-to-use menus and LCD display let you set all keyer functions merely by pushing buttons. Keyer functions can also be changed from your paddle, keyboard or computer.

The LCD also shows the message as it's being sent from memory or live from your paddle, keyboard or computer.



MFJ-495
$159.95
Ship Code A

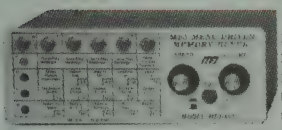
The MFJ-495 has 32 message memories of 256 characters each. You can repeat messages continuously, insert timed pauses within messages, insert an auto-incrementing serial number, have messages call other messages or insert embedded commands to change speed, weight, etc. automatically.

MFJ-495 supports both Direct and Grid-Block outputs and has a port for an optional remote control. Has PTT output, built-in speaker, sinewave sidetone and more!

Some of its features:

Iambic keyer with dot and dash memories; automatic, semi or hand-key mode
Message editing capability
Input queue to store multiple messages
Auto-incrementing contest serial numbering from 001 to 9999
Digital and linear analog speed control from 5 to 99 wpm (3:1 to 20:1 speed range)
Farnsworth with speed from 10 - 99 wpm
Ultra speed sets messages up to 990 wpm
Adjustable weight 25% to 75%
Adjustable sidetone from 300 to 1000 Hz
Keying output delay up to 20 ms
Push-to-talk (PTT) hang time up to 5 seconds
Direct (positive)or grid-block(negative keying
Timed tune function for XMTR adjustment
Timed pauses within messages/message loop
Internal speaker with adjustable volume
Support for Qwerty and Dvorak keyboards
190 characters type-ahead keyboard buffer with low buffer warning
Dual user mode supports operators with different configuration settings

MFJ *Menu Driven* Memory Keyers™



U.S. Patent # 363,724

MFJ-492
$99.95
Ship Code B

No need to read an instruction manual -- simply select a menu by pressing a button. An LED lights to show you which menu is active. You select a feature by pressing a button. It's as easy as using a computer touch screen! Menus are clearly printed on the front panel.

From the menu you can save and play messages, decrement serial numbers, set speed, weight, sidetone, enter iambic, semi-auto, handkey, message queue, paddle command modes, turn on/off sidetone, transmitter tune, keying output on/off, select iambic A/B, reverse paddle, Code trainer and store starting serial number.

Bypass the menu by keying in simple two letter commands. When you select a feature the keyer tells you its status in CW.

Memory is expandable to over 8000 characters. You can expand the MFJ-492 standard 192 characters in four soft sectored message memories to over 8000 characters in eight message memories by simply plugging in the MFJ-80, $19.95, Memory Expansion Kit. Memories are backed up by lithium battery.

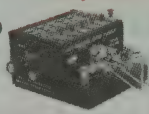
You can adjust CW speed from 5 to 100 WPM by pressing the dot or dash paddle smoothly or by turning a knob control. A powerful Morse trainer lets you practice or teach code in Farnsworth or normal mode. You can select letters, numbers, punctuation or prosigns or any combination for practice using standard 5 character groups, more realistic 1 to 8 character groups or select specific six character sets to work on.

There's so much more! You get contest serial numbering (0-9999) with auto-increment, built-in sidetone, speaker, front panel volume control and adjustable 300-3000 Hz tone. You can use automatic, semi-automatic bug or handkey modes, reverse dot/dash paddles, adjust weight from 5 to 95% and compensate for transmitter distortion, direct and grid block keying, keys solid state and tube rigs. Special MARS characters are recognized.

Uses 9 Volt battery (not included), 12 VDC or 110 VAC with **MFJ-1312B, $14.95**. 6½x2½x6¾ inches. Order **MFJ-492, $99.95** or **MFJ-492X, $114.95.** MFJ-492 with MFJ-80 memory expansion pre-installed.

MFJ-78, $29.95. Full function remote control puts message memories and menu control at your finger tips.

Keyer/Bencher Paddle Combo



MFJ-490
$194.95
Ship Code B

The best of all CW worlds -- nearly all the features of the MFJ-492 in a compact configuration that fits right on the Bencher Iambic paddle! U.S. Patent # 363,724. Buy the combo or just the keyer for your Bencher. Memories, Morse trainer, sidetone, automatic serial numbering -- more! 5x3x5½ inches. **MFJ-490, $194.95. MFJ-490X, $109.95.** Keyer only. Uses 9 volt battery (not incl) or 110 VAC with **MFJ-1312B, $14.95.**

Super Menu Driven Keyer

MFJ-493
$139.95
Ship Code B

All features of MFJ-492 plus . . . 32,000 characters of memory! Plug in a IBM compatible 101 AT type keyboard and you have an extremely powerful stand alone keyboard keyer. All commands, functions, and memories can be done through the keyboard. Serial port lets you combine the power of your computer. 7½x2½x6¾ in. Use MFJ-1315, $14.95. **MFJ-551, $39.95**. RFI suppressed keyboard.

MFJ-79, $29.95. Remote control box for MFJ-493.

MFJ *Super CW Keyboard Keyers*

MFJ-452
$139.95
Ship Code B

MFJ *Super CW Keyboard* lets you send effortless CW as soon as you turn it on -- no computer to boot, no program to load -- just start typing.

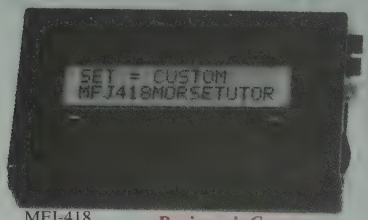
You get a standalone MFJ CW Keyboard that includes an RFI suppressed keyboard, a two line 16 character LCD display, eight 250 character nonvolatile message memories, a 150 character type-ahead buffer, iambic keyer, plus a powerful Morse Code trainer, much more!

Variable speed from 5 to 100 WPM, adjustable weight from 5 to 95%, sidetone from 300 to 3000 Hz and serial number from 0 to 9999. Has buffer and memory full audible indicators. Keys solid state and tube rigs. AT101 compatible keyboard plugs into compact 3½x2½x3½ inch interface. Use 12 VDC or 110 VAC with MFJ-1312B, $14.95. **MFJ-452X, $109.95.** No keyboard.

MFJ-451, $109.95, like MFJ-452 but without LCD display and has two 100 character memories. **MFJ-451X, $89.95.** No keyboard.

MFJ *pocket size* Morse Code Tutor

Learn Morse code fast, anywhere . . . LCD display lets you check your copy instantly . . . Easy no-code beginner's course . . . Takes you beyond Extra Class . . . Plain English QSOs .



MFJ-418
$79.95

Beginner's Course

ARRL/VEC format. Learn Ship Code A small fixed sets of characters. Previously learned sets are combined with new sets to reinforce all you have learned.

InstantReplay™

Practice copying, then instantly replay to check your copy on the LCD display.

Custom Character Sets

Having trouble with certain characters? Build and save 3 custom sets of 16 characters for extra practice -- *an MFJ exclusive.*

Realistic Plain English QSOs

Practice copying *realistic* on-the-air style plain English random QSOs. Gets you ready to pass your FCC test and upgrade. Also builds confidence for your first *real* contact.

MFJ Word Recognition Mode™

MFJ's *Word Recognition Mode™* gives you hundreds of commonly used words in ham radio. Practice recognizing *entire words* instead of individual letters.

You'll never run out of practice

Select letter, number, punctuation, prosign or FCC character sets (has *only* letters, numbers and prosigns required on FCC tests), random call signs, random words, QSOs or combo sets for practice -- *you'll never run out of study material!*

MFJ InteractiveMode™

InteractiveMode™ lets *you* decide when to copy the next or previous group and how many -- great for beginners!

Normal or Farnsworth

Select normal or Farnsworth spacing.

Farnsworth makes it easier to learn *entire* characters. Stop counting individual dots and dashes that slows learning! Adjustable 10 to 60 WPM for high-speed.

Fixed or Random Length Groups

Use fixed length or more realistic random length groups (up to 8 characters).

Change speed on the Fly

You can change speed *on-the-fly* while playing a session 3 to 60 words-per-minute.

SettingSaver™

Settings are automatically saved, ready to use next time--just turn on and hit replay.

LARGE LCD Display

Check your copy, select from menus and program custom characters and words on 2 line LCD display with 32 *huge* 1/4 inch high-contrast characters -- *powerful sound and sight learning!*

SilkySmoothSidetone™

Only MFJ gives you *SilkySmooth Sidetone™* with *TruTone™* sinewave and *SoftStart™* dots/dashes -- lets you concentrate on learning without the distraction of harsh keyclicks. Use earphones for private practice or built-in speaker for groups. Volume control. Variable pitch 300-1000 Hz.

True Pocket Size

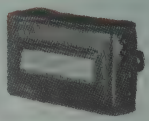
Fits in your shirt pocket with room to spare -- smaller than a pack of cigarettes. Tiny $2^1/_4$x$3^3/_4$x1 in., weighs less than $5^1/_2$ ounces. Uses 9 volt battery (not included).

Tapes can't compare

Tapes play the same old boring stuff over and over again. Unlike tapes, you'll *never* memorize MFJ-418's random sessions.

Pocket Tutor Accessories

MFJ-26, $4.95. Soft leather protection for MFJ-418 with pocket/belt clip.



MFJ-281, $12.95. Speaker for group practice. Loud, powerful audio! $3^3/_4$x3x$2^1/_4$"

More pocket size MFJ Morse Tutors

MFJ-417, $59.95. Similar to MFJ-418, but no LCD. Most software features.

MFJ-413, $39.95. Similar to MFJ-417, less random words, QSOs, SettingSaver™.

Deluxe Morse straight key for code and sending practice

MFJ-557 features a heavy steel base, tone/volume controls and an earphone jack for just $29.95!

MFJ-557
$29.95
Ship Code B

MFJ-550
Telegraph Key only
$7.95
Ship Code A

MFJ-557 *Deluxe Code Practice Oscillator* features a Morse straight key on a non-skid heavy steel base - stays put on table and doesn't move around while you're sending.

MFJ-557 lets you practice sending code at home, work, riding in your car -- practically anywhere -- because it's so easy to take it wherever you go. Volume control adjusts from barely audible to blaring full sound. You can practice without bothering anyone.

Tone control gives you a wide adjustment, from high "squeaky" to low "booming" tones. You even get an earphone jack for private listening times.

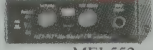
Plug in an external speaker (**MFJ-281, $12.95,** loud, powerful compact speaker) for super high volume in the classroom.

MFJ-557 runs on a 9 volt battery (not included) or 110 VAC with MFJ-1312, $14.95. Plugs into power jack on the side.

When you're finished cleaning up your sloppy fist with the MFJ-557, hook up the straight key to your transmitter and go *on-the-air* sounding like you were born working QSOs.

Don't pass up a super buy! Built-in speaker, adjustable contacts. Solid $8^1/_2$x$2^1/_4$x$3^3/_4$ inches. Black. 1 year MFJ warranty.

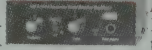
On-the-air CW Fun using HT



MFJ-552
$79.95
Ship Code A

MFJ's *JimHandy™* CW interface plugs into your 144/440 MHz handheld and converts it into a modulated CW transceiver -- just plug in your key. Get your ham buddies together *on-the-air* and enjoy some fantastic CW fun. Run a little code practice on your repeater. Start your own FM CW Net. Have fun and upgrade! A transmit/receive switch automatically switches your HT to transmit when you send CW and returns you to receive when you stop keying. Has built-in speaker, volume control and great sounding *true* sinewave sidetone -- no harsh keyclicks. 4Wx$1^1/_4$Hx$3^1/_4$D inches. Use 9V battery (not included). Pre-wired patch cables, $15.95 for your HT on page 31. **MFJ-550, $7.95.** Straight telegraph key.

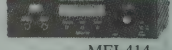
Classroom Code Oscillator



MFJ-554
$79.95
Ship Code A

The world's finest code practice oscillator is designed for demanding classroom use and abuse. It produces a true pure *sinewave* sidetone with no trace of harsh keyclicks. You'll hear the clearest, sweetest sounding CW you have ever heard. Delivers full 1 watt into built-in 3" speaker -- fills an entire room. Low distortion -- less than .2% total harmonic distortion from its BTL (Bridge-Tied-Load) amplifier. Volume control, 400-1000 Hz tone control, on/off switch, power on LED, $^1/_4$ inch key jack, 3.5 mm external speaker jack, uses 12 VDC. All metal enclosure $4^3/_4$x$1^1/_2$x5 in. ***Save $15.85!*** **MFJ-554X, $99.95.** Includes MFJ-554 Code Oscillator, MFJ-281 *ClearTone™* speaker, MFJ-550 Telegraph Key and MFJ-1315 AC adapter.

Class Room Morse Code Tutor



MFJ-414
$199.95
Ship Code A

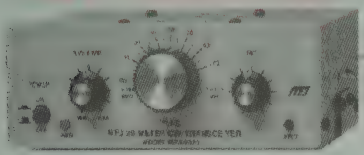
The Cadillac of all Morse Code trainers! For VECs, Elmers, teachers, ham clubs, schools and hams who want the best. Has everything in the famous MFJ-418 *Pocket Size Morse Code Tutor™* plus . . . Hear powerful classroom audio from its built-in speaker/amplifier with true sinewave sidetone and no harsh keyclicks . . . Down/upload custom practice groups from PC with serial port . . . Store 16 FCC exams for VECs . . . Print correct answers using printer port . . . Record quality code tapes with tape output . . . Send *on-the-air* CW practice with HF/VHF radio interface. . . Use full featured memory keyer with 1000 character memory. Serial port and open end HT cables included. 110 VAC /12VDC operation. $8^1/_2$Wx$2^1/_4$Hx6D inches.

MFJ CW/SSB TRANSCEIVERS

MFJ SSB TRANSCEIVERS

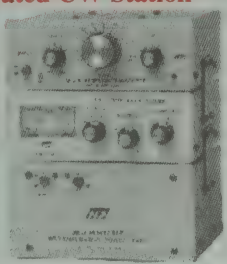
MFJ-9402X, $299.95. 2 Meter SSB Adventure Radio. No code techs and veterans alike can enjoy DXing and ragchewing with far away hams on SSB. 7 Watts PEP. Covers 144-144.3 MHz. Low power drain. Includes microphone. 2½x6½x6 inches.
MFJ-9406X, $269.95. Work exciting 6 Meter DX from all over the world on ham radio's magic band! Full SSB/CW coverage: 50.0 to 50.3 MHz. Covers SSB, CW propagation beacons. 10W PEP. Hot receiver. Includes microphone.
MFJ-9410X, $269.95. 10 Meters is red hot! Work the world with this 10 Meter SSB rig. 20 Watts PEP. Hot receiver, 2.3 KHz crystal filter, real S-meter, syllabic speech processing. Covers 28.3 to 28.6 MHz. Includes microphone.
MFJ-9420X, $249.95. 20 Meter SSB Transceiver. 12 Watts PEP output. Smooth VFO. Includes microphone.
MFJ-9440X, $249.95. Same as 9420 but for 40 Meters. Includes microphone.
MFJ-9475X, $249.95. Same as 9440 but for 40 Meters. Includes microphone.

MFJ CW TRANSCEIVERS



MFJ-9020, $189.95. New and improved ultra-hot receiver. Enjoy DXing or ragchewing wherever you go. No compromise performance. Smooth VFO, excellent sensitivity, great selectivity. True RIT control, smooth AGC, built-in 3 inch speaker, rugged Motorola power amplifier transmitter, sine-wave sidetone, semi-QSK, rugged construction. 13.8 Volts, 50 mA on receive. 1.2 Amp peak on transmit. 6½Wx2½Hx6D inches. Covers 14.000 to 14.075 MHz.
MFJ-9015, $189.95. 21.0-21.2 MHz.
MFJ-9017, $189.95. 18.068-18.110 MHz.
MFJ-9030, $189.95. 10.100-10.150 MHz.
MFJ-9040, $189.95. 7.000-7.150 MHz.

Integrated CW Station



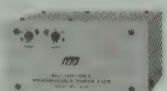
Complete CW Station! Radio, tuner, power pack, dipole. All fasten together to form 6x6x8½ inch station.
MFJ-9140B (40M), **MFJ-9130B** (30M), **MFJ-9120B** (20M), **MFJ-9117B** (17M), **MFJ-9115B** (15M). **$364.80 each.** ***Saves 30!*** Costs much more when purchased separately. Carrying handle, **MFJ-27, $4.95.**

MFJ QRP-CUB™ CW RADIO

MFJ-93XXK, $99.95. Kit.
MFJ-93XXW, $149.95. Wired & Tested.
MFJ *QRP-Cub*™ Transceivers use surface mount technology to achieve big performance in a pocket-sized package.
The kit version has all SMT parts mounted and soldered. You just insert and solder the "through-hole" parts such as the connectors, inductors and trimmer caps.
Designed by QRP-ARCI hall-of-famer K1BQT for real world low-power operating conditions. Buy all or choose from 80, 40, 30, 20, 17, or 15 Meters. Specify band in "XX" area of model number.
Hot receiver with 0.2 uV sensitivity, low noise, sharp passband crystal filter, Differential mode AGC, rock steady, over 80 dB signal range, robust AF output, 2 Watts thru 20 Meters, 1 Watt 15/17 Meters. Power adjustable to zero, full QSK for smooth break-in, natural sidetone, shaped keying, custom TX offset, receiver passband center, low power drain. Tiny 3¾Wx1½Hx4½D inches.

MFJ SSB/CW XCVR ACCESSORIES

MFJ-4110, $49.95. Portable AC power supply. Connect to MFJ radios. LED indicates when power is applied. Output is approximately 13.8 VDC at 1.2 amps.
MFJ-4114, $69.95. AC Power supply/Battery Pack uses Ni-Cd D cells or alkaline D cells (not included). Matches MFJ radios. Output is 13.8 VDC at 1.2 amps. Voltage regulated. Ni-Cd charge circuit.



MFJ-415B, $49.95. Plug in CW adapter for MFJ-9420/9440. Semi break-in T/R switching. Sidetone, key jack, mode switch.
MFJ-416, $49.95. CW for MFJ-9406/9402.
MFJ-726, $29.95. Narrow audio filter for MFJ transceivers.
MFJ-412, $49.95. Curtis chip iambic keyer module. Use your MFJ paddles.
MFJ-940A, $79.95. 10 Meter Antenna Tuner, SWR/ Wattmeter. Tiny 4x2½x1¼ inches.

MFJ-1770, $34.95. 10 Meter dipole antenna.
MFJ-1770A, $34.95. 10 Meter dipole.
MFJ-1771, $34.95. 17 Meter dipole antenna.
MFJ-1772, $34.95. 20 Meter dipole antenna.

MFJ-1773, $34.95. 30 Meter dipole.
MFJ-1774, $34.95. 40 Meter dipole.

33 Feet Telescoping fiberglass Mast . . .

Collapses to 3.8 feet, weighs 3.3 lbs

Just pull out each section and twist to lock. It extends to a whopping 33 feet -- long enough to be a *full* 1/4 Wave on 40 Meters!

MFJ-1910
$79.95
Ship Code C

It collapses to just 3.8 feet and weighs a light 3.3 pounds for true portability. Bottom section is 1¾ inch diameter.

Great for portable and temporary use -- traveling, camping, from hotels, hamfests, field day, DX-peditions.

Put up a full size inverted Vee dipole or vertical antenna in minutes and get full size performance.

Use to construct other types of antennas like loops and quads.

Super strong fiberglass flexes to resist breaking. Black resists UV.

10 Bands -- *1 MFJ Antenna!*

Full size performance . . . No ground or radials

Operate 10 bands: 75/80, 40, 30, 20, 17, 15, 12, 10, 6 and 2 Meters with one antenna Separate full size radiators . . . End loading . . . Elevated top feed . . . Low Radiation Angle . . . Very wide bandwidth . . . Highest performance no ground vertical ever . . .

Operate 10 bands -- 75/80, 40, 30, 20, 17, 15, 12, 10, 6 and 2 Meters with this MFJ-1798 vertical antenna and get *full size performance* with no ground or radials!

Full size performance gives high efficiency for more power radiated. Results? Stronger signals and more Q-5 QSOs.

Full size performance also gives you exceptionally wide bandwidths so you can use more of your hard earned frequencies.

Full size performance is achieved using separate full size radiators for 2-20 Meters and highly efficient end loading for 30, 40, 75/80 Meters.

Get very low radiation angle for exciting DX, automatic bandswitching, omni-directional coverage, low SWR. Handles 1500 Watts PEP SSB.

MFJ's unique *Elevated Top Feed*™ elevates the feedpoint *all the way to the top* of the antenna. It puts the maximum radiation point high up in the clear where it does the most good -- your signal gets out even if you're ground mounted.

It's easy to tune because adjusting one band has minimum effect on the resonant frequencies of other bands.

MFJ-1798
$289.95
Ship Code F

Self-supporting and just 20 feet tall, the MFJ-1798 mounts easily from ground level to tower top -- small lots, backyards, apartments, condos, roofs, tower mounts.

Separate Full Size Radiators

Separate *full size* quarter wave radiators are used on 20, 17, 15, 12, 10 and 2 Meters. On 6 Meters, the 17 Meter radiator becomes a 3/4 wave radiator.

The active radiator works as a stub to decouple everything beyond it. *In phase* antenna current flows in all parallel radiators.

This forms a very large equivalent radiator and gives you incredible bandwidths.

Radiator stubs provide automatic bandswitching -- absolutely *no loss* due to loading coils or traps.

End Loading

On 30, 40, 75/80 Meters, end loading -- the most efficient form of loading -- gives you highly efficient performance, excellent bandwidth, low angle radiation and automatic bandswitching.

MFJ's unique *Frequency Adaptive L-Network*™ provides automatic impedance matching for lowest SWR on these low bands.

Tuning to your favorite part of these bands is simple and is done at the *bottom* of the antenna.

No Ground or Radials Needed

You don't need a ground or radials because an effective counterpoise that's 12 feet across gives you *excellent* ground isolation.

You can mount it from ground level to roof top and get awesome performance.

No Feedline Radiation to Waste Power

The feedline is decoupled and isolated from the antenna with MFJ's exclusive *AirCore*™ high power current balun. It's wound with *Teflon*® coax and can't saturate, no matter how high your power.

Built to Last

Incredibly strong solid fiberglass rod and large diameter 6061 T-6 aircraft strength aluminum tubing is in the main structure.

Efficient high-Q coils are wound on tough *low loss* fiberglass forms using highly weather resistant *Teflon*® covered wire.

MFJ's Super High-Q Loop™ Antennas

MFJ-1786
$379.95
Ship Code F

MFJ's *tiny* 36 inch diameter loop antenna lets you operate 10 through 30 MHz *continuously* -- including the WARC bands!

Ideal for limited space -- apartments, small lots, motor homes, attics, or mobile homes.

Enjoy both DX and local contacts mounted vertically. Get both low angle radiation for excellent DX and high angle radiation for local, close-in contacts. Handles 150 watts.

Super easy-to-use! Only MFJ's super remote control has *Auto Band Selection*™. It auto-tunes to desired band, then beeps to let you know. No control cable is needed.

Fast/slow tune buttons and built-in two range Cross-Needle SWR/Wattmeter lets you quickly tune to your exact frequency.

All welded construction, no mechanical joints, welded butterfly capacitor with no rotating contacts, large 1.050 inch diameter round radiator -- not a lossy thin flat-strip -- *gives you highest possible efficiency.*

Each plate in MFJ's tuning capacitor is welded for low loss and polished to prevent high voltage arcing, welded to the radiator, has nylon bearing, anti-backlash mechanism, limit switches, continuous no-step DC motor -- gives smooth precision tuning.

Heavy duty thick ABS plastic housing has ultraviolet inhibitor protection.

NEW! **MFJ-1788, $429.95.** Same as MFJ-1786 but covers 40 Meters-15 Meters continuous. Includes super remote control.

MFJ-1782, $339.95. Like MFJ-1786 but control has only fast/slow tune buttons.

MFJ-1780, $249.95. *Box Fan* Portable Loop is about the same size (2x2 foot) as a box fan, complete with handle. Covers 14-30 MHz. Control has fast/slow tunes.

MFJ Portable Antenna

MFJ-1621 **$89.95** Ship Code A

MFJ-1621 lets you operate in most any electrically free area -- apartment, campsite, hotel, the beach, etc. DXCC, WAZ, WAC, WAS have been won with MFJ-1621! Work 40, 30, 20, 17, 15, 12 and 10 Meters with a telescopic whip that extends to 54 inches. Mounted on a sturdy 6x3x6 inch cabinet. Built-in antenna tuner, field strength meter, and 50 feet of RG-58 coax cable. Handles 200 Watts.

MFJ's G5RV Antenna

MFJ-1778, Ship Code A **$39.95**

Covers all bands, 160-10 Meters with antenna tuner. 102 feet long, shorter than 80 Meter dipole. Use as inverted vee or sloper to be more compact. Use on 160 Meters as Marconi with tuner and ground. Handles full legal limit power. Add coax feedline -- get *on the air!*

MFJ halfwave vertical

6 bands: 40, 20, 15, 10, 6, 2 Meters . . . No radials or ground needed

MFJ-1796
$209.95
Ship Code F

Only 12 feet high and has a tiny 24 inch footprint! Mount anywhere -- ground level to tower top -- apartments,small lots, trailers. Perfect for vacations, field day, DXpedition, camping.

Efficient end-loading, no lossy traps. Entire length is always radiating. Full size halfwave on 2/6 Meters. High power *air-wound* choke balun eliminates feedline radiation. Adjusting 1 band has minimum effect on others.

Automatic bandswitching, low radiation angle, omni-directional, handles 1500 watts PEP. Goes together in an afternoon.

Super 80/40 Meter Vertical

MFJ-1792, $169.95, is a high-performance 80/40 Meter vertical. Full size quarter wave radiator for 40 Meters -- that's 33 feet of ruthless radiating power. End loading, low-loss fiberglass form, high strength 6061-T6 aluminum tubing, handles 1500 Watts PEP, requires guying and radials, counterpoises or ground screen.

Super 80/40/20 Meter Vertical

MFJ-1793, $189.95, like MFJ-1792 but has full size 20 Meter 1/4 wave radiator also.

MFJ Apartment Antenna

Covers 40 thru 2 Meters . . . Mounts outdoor to windows, balconies, railings . . . works great indoors mounted to desks, tables, bookshelves

MFJ-1622
$99.95
Ship Code C
New!

This new MFJ-1622 Apartment Antenna lets you operate 40 through 10 Meters on HF annd 6 and 2 Meters on VHF with a single antenna!

Its universal mount/clamp lets you easily attach it to window frames, balconies and railings. It also works great indoors mounted to a desk, table or bookshelf. It's not a five element yagi, but you'll work your share of exciting DX!

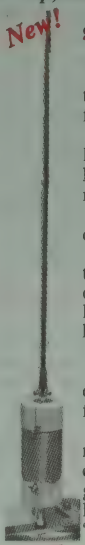
Highly efficient air wound "bug catcher" loading coil and telescoping 5½ foot radiator lets you really get out! Radiator collapses to 2½ feet for easy storage and carrying.

It includes coax RF choke balun, coax feed line, counterpoise wire and safety rope.

The operating frequency is adjusted by moving the "wander lead" on the coil and adjusting the counterpoise for best SWR.

HF mini-Bugcatcher

Highly efficient base-loaded 5½' bugcatcher covers 40 thru 6 Meters . . . Use simple trunk lip, mirror, luggage mount or tri-mag mount



New!

MFJ-1624
$79.95
Ship Code C

Become an *"HF Mobileer"* almost instantly with almost no effort! Have tons of fun rag-chewing and DXing on the HF bands. Turn boring drives into fun-filled ham adventures.

It only takes minutes to attach a trunk lip mount (MFJ-347, $39.95), mirror or luggage mount (MFJ-342, $9.95) or tri-magnet mount (MFJ-338T, $19.95).

Screw in your MFJ-1624 mini bugcatcher HF mobile antenna.

Throw your rig into your car, plug it in the cigarette lighter and turn the power down to 20 Watts or so (to avoid overloading your cigarette lighter; MFJ-1624 handles 300 Watts PEP).

Operate HF mobile and enjoy DXing!

Bugcatcher design uses large highly-efficient air-wound inductor -- far out performs other compact HF antennas.

Exclusive *built-in* inductive matching network keeps SWR low. 5½ foot whip collapses to 2½ feet for easy storage and garages. Base loaded for minimum wind load and stress. Change bands by moving "wander lead". 3/8 by 24 inch mount.

MFJ Vertical for Antenna Restricted Areas

40, 20, 15, 10 Meters, Automatic Band Switching

MFJ-1795
$149.95
Ship Code D
New!

Perfect for permanent or portable operation in antenna restricted areas. Hide behind trees, fences, buildings, in bushes -- only 7 to 10 feet tall (adjustable).

Low angle of radiation for DXing, omni-directional, handles 1500 watts PEP.

Highly efficient end-loading. Entire length radiates. Low SWR.

Ground mounts with suitable ground such as MFJ-1904 *Ground-Coupled Antenna Base*, radials or ground rods. Or roof mount with radials.

MFJ *Ground-Coupled* Portable Antenna Base

Can you use a portable or semi-permanent vertical antenna that is easily carried, easy-to-setup and radiates well with low SWR?

Truly portable vertical antennas have two basic problems - -

1. How do you get an effective ground so your antenna will radiate well?

2. How do you support and mount a vertical easily and quickly?

MFJ brings you a simple breakthrough solution that is small, easy-to-carry and radiates very well!

The *MFJ Ground-Coupled Portable Antenna Base*™ gives you a stable way to mount your vertical antenna and provides an effective ground by just plopping down the base and standing on it to push the legs firmly into the ground. It'll support many multi-band verticals.

You can operate 160 Meters thru 6 Meters and above almost anywhere with an effective signal. It's perfect for traveling or for semi-permanent summer/winter homes. You can easily set it up and take down your vertical antenna for stealth operation if you live in an antenna-restricted area.

Mobile antennas on cars, trucks and other vehicles are grounded by the vehicle body acting as one plate of a capacitor coupling RF to ground. This *time proven* principle needs no tuning and the antenna radiates well and gives good SWR on all bands.

The capacitance to ground is proportional to the area over ground and inversely proportional to the distance between ground and the car body.

In other words, by reducing the distance between the capacitor plate (i.e. the car body) and ground, the area of the capacitor plate (the car body) can be reduced dramatically. If that distance is reduced to near zero the capacitor plate can be very small.

A 2 x 2 foot square of metal firmly against the ground can approximate the capacitance of a car to ground. This provides an effective ground for vertical antennas. A mobile antenna using this capacitance ground will perform about the same as on a car. If the antenna is made longer than a normal mobile whip -- which you can do in fixed portable operation -- the antenna performance can be far better.

The MFJ-1904 *Ground-Coupled Portable Antenna Base*™ is a 2x2 foot *stainless steel* square with reinforcing bends that greatly strengthens it. There is a folded and tapered six-inch *stainless steel* leg on each corner.

Two antenna mounts let you use a variety of vertical antennas.

Two handles make carrying and removing the base fast and easy.

You can also attach radials for improved performance.

Stainless steel construction means you'll get trouble-free service for years.

The base is anchored into the ground by stepping on each corner and forcing each leg into the ground. Each *stainless steel* leg is designed to keep the base from tilting.

The base can support a lightweight multi-band vertical antenna -- like the all band Hy-Gain 18AVS and the bandswitching MFJ-1795 -- and provide a semi-permanent installation. You can even hide the base by covering it with dirt.

Built-in antenna mount with SO-239 coax connector and two U-bolts lets you mount most standard and homebrew vertical antennas.

Standard 3/8-inch x 24 mobile antenna mount built-in for MFJ Mobile Whips, bug catchers, *Hustlers* and screwdriver antennas.

MFJ-1904, $99.95, MFJ *Ground Coupled Antenna Base*™ only.

MFJ-1904PXX, $119.90, *MFJ Ground Coupled Antenna Base*™ with your choice of one MFJ Mobile Whip, MFJ-16XXT.

MFJ-1904HG18, $174.90, *MFJ Ground Coupled Antenna Base*™ and manual band switching Hy-Gain AV-18VS for 80, 40, 30, 20, 17, 15, 12, 10 Meters.

MFJ-1904/MFJ-1795 combo, $219.90. MFJ-1904 *Ground Coupled Antenna Base*™ and automatic band switching MFJ-1795 antenna for 40, 20, 15, 10 Meters.

MFJ 5/8 Wave Ground Plane

For an incredible $24.95, you get a 300 Watt 5/8 Wave ground plane 2 Meter home station antenna. Other 5/8 wave ground planes can't work any better -- no matter how much they cost . . .

Look at all you get at an incredible $24.95!

You get a 300 Watt 5/8 wave ground plane base antenna for 2 Meters that gives you the maximum possible calculated gain of any single element antenna.

Other 5/8 waves *can't* work any better -- no matter how much they cost.

You get *shunt fed matching network* for lowest possible SWR over entire 2 Meter band. Plus, it bleeds off unwanted static.

You get MFJ's *RapidTuneRadiator*™ for quick accurate tuning.

MFJ-1750
$24.95
Ship Code A

You get a ceramic insulator for low RF loss. Result? Maximum radiated power is achieved.

Easy installation to any 1 to 1½ inch mast, (not included) with a single U-bolt (included).

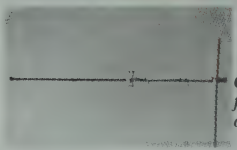
You get strong lightweight aluminum construction that's protected by MFJ's *PermanentMolecularBonding Technology*™. This super durable finish actually bonds itself to aluminum molecules -- it won't come off unless metal comes off!

You get MFJ's famous *No Matter What*™ one year limited warranty.

Just $24.95 gets you the most incredible value in a 5/8 wave base station ground plane. Remember, other 5/8 wave ground planes can't work any better.

MFJ-1750, $24.95. 2 Meter 5/8 Wave.
MFJ-1752, $24.95. 220 MHz 5/8 Wave.

MFJ 7 element dual band 144/440 MHz Yagi



MFJ-1768
$79.95
Ship Code A

Get two Yagis for the price of one . . .

Put two Yagis in the space of one with single coax feed. Get 7 elements on 440 MHz and 4 elements on 2 Meters.

Exclusive dual band balanced feed with *FerriteChoke*™ decoupling prevents pattern skewing-- gives low SWR. 1/4 inch diameter driver elements give wide bandwidth.

National Bureau of Standards design is optimized for maximum gain, high front-to-back ratio, clean symmetrical pattern.

Mounts vertically for FM/Packet or horizontally for SSB with single included U-bolt on 1 to 1½ inch mast or tower leg.

Includes a 5 foot, 1⅛ inch diameter boom, antenna weighs in at 2 pounds. Elements are electrically isolated from boom. High strength 6061-T6 aluminum tubing is used for the compact boom -- stays sturdy in inclement weather. Mast is not included. Get extra oomphh!

Quick assembly -- Get it up and *on-the-air* working DX in less time than going to the store to bring home a six-pack.

Portable 3 element beam for 2 Meters

Check out MFJ's portable 3 element beam for 2 Meters. Unique design lets you set it up or take it down in seconds! Elements simply screw into the boom. It's easy to store and sturdy enough to use as your base station antenna.

MFJ-1763
$44.95
Ship Code A

The extra gain and directivity from this beam could get you through when a vertical can't. It'll make the difference between "you're breaking up . . ." and "Solid copy".

Center mount it and use it vertically on FM or horizontally for SSB. By rotating it you can minimize QRM. Unique design also lets you end mount it vertically or horizontally on the leg of a tower . . . great for Packet and *PacketCluster*™.

Its compact 2¾ foot boom gives you a calculated gain within 1 dB of a four element Yagi with a boom nearly twice as long. Extra thick elements maintain high gain and directivity over virtually the whole 2 Meter band. A ferrite choke balun gives you excellent feedline decoupling. Coax coupling is further reduced by mounting the SO-239 connector behind the reflector.

Has MFJ's Permanent Molecular Bonding Technology™. New coating won't come off unless the metal comes off. Weighs just 2 pounds. Boom is 30½x1¾x1¼ inches. Mounts easily to mast or tower leg with single included U-bolt. Mast not included.

Take the MFJ-1763 Two Meter portable Yagi with you wherever you go and have the oomph and directivity of a beam.

Dual Band 144/440 Ground Plane

MFJ-1754
$29.95
Ship Code A

MFJ's dual band 144/440 ground plane antenna is small, lightweight and super easy to mount to any 1 to 1½ inch mast, (not included) with a single included U-bolt -- you'll have it up and operating anywhere in just minutes. Great for backpacking.

Mount it inside to get on-the-air quickly. You get extra long range on 440 MHz with a high gain halfwave over quarter wave antenna and solid 1/4 wave performance on 2 Meters.

Ground plane is sloped to give low SWR across both bands and to minimize feedline radiation. This gives you more useful radiated power, reduced TVI and noise pickup by the coax shield.

Improved 1/4 Wave Ground Plane for 2-Meters

MFJ-1740, $19.95. Improved 1/4 Wave ground plane. Handles 300 Watts for two meters that'll bring up repeaters as well as or better than any 1/4 wave ground plane -- even if they cost twice as much. *FastTuneRadiator*™, low loss ceramic antenna insulator.

Stacked 5/8 Wave for 2 Meters

MFJ's stacked 5/8 wave radiators give you more than twice the omni-directional gain of a single 5/8 wave radiator!

MFJ-1764
$49.95
Ship Code A

Wide 10 MHz 2:1 SWR bandwidth . . . excellent ferrite choke balun feedline decoupling . . . shunt choke for bleeding off unwanted static . . . strong lightweight aluminum. Works as an excellent 6 Meter full half-wave centerfed antenna. Great for MFJ's 6 Meter radios!

Mounts vertically for FM/packet or horizontally for SSB. Install with single U-bolt (included) to any 1 to 1½ inch mast or tower leg.

MFJ-1766, $119.95. Gives you *four* times the gain of a single 5/8 wave. 2 MFJ-1764 antennas, phasing cables. Double gain on 6M.

MFJ-1765, $34.95. Includes phasing cables for two MFJ-1764s.

Your Choice!
$19.95
Each
Ship Code B

MFJ-1675T - 75 Meters
MFJ-1640T - 40 Meters
MFJ-1630T - 30 Meters
MFJ-1620T - 20 Meters
MFJ-1617T - 17 Meters
MFJ-1615T - 15 Meters
MFJ-1610T - 10 Meters
MFJ-1606T - 6 Meters

MFJ HF Mobile *Ham-Tenna Whips*™

These MFJ monoband mobile *Ham-tenna*™ Whips make HF mobiling fun and easy! They're small, lightweight, efficient & super easy-to-use.

Dual center and distributed loading lets you radiate efficiently -- you get more power out for working DX & ragchewing.

Each is ruggedly constructed. A heavy duty 4 foot, 3/8 inch diameter fiberglass rod, a nearly indestructible .125 inch diameter PH-17-7 stainless steel whip and chrome plated brass fittings will give you years of dependable service.

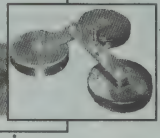
Its sleek, low profile construction has low wind loading and its semi-rigid fiberglass eliminates the need for springs or guys.

A black anti-static jacket protects the loading coil and blends with any vehicle.

The stainless steel whip is adjustable for lowest SWR. Includes Allen wrench and complete tuning and matching instructions.

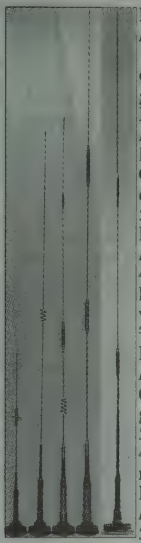
Handles 250 Watts PEP. About 7 ft. tall, fully extended and collapses to 4 feet for easy storage.

Simply screws into any 3/8x24 female mount for quick band-changing.



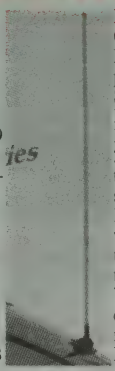
MFJ-338T, $39.95. ***No Hole Mag Mount!*** **MFJ** *Goliath*™ Tri-Mag Mount has three incredibly super strong 5-inch magnets bolted to 1⅛ inch wide by 1/4 inch solid aluminum crossbars. Has 17 feet coax. **Caution:** Once you put this on, it's difficult to get it off!

VHF/UHF MOBILE ANTENNAS

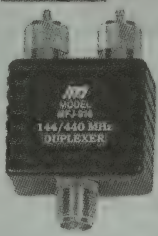


MFJ-1402, $34.95. *RuffRider Junior*™. Short 16½" antenna is 1/4 wave on 2 meters, ½ wave, 3 dB gain on 440 MHz. 100 W. **MFJ-1412, $49.95.** *RuffRiderHighPower*™ 40" long handles full 200 W. Great for amp! 1/2 wave, 3 dB on 2 Meters, 5/8 wave, 5.5 dB gain on 440 MHz. **MFJ-1422, $49.95.** *RuffRider HighGain*™. 41½" gives extra gain with little height. 150 Watts, 1/2 wave, 3.2 dB gain on 2Mtr, ⅝wave,5.7dB on 440 MHz. **MFJ-1432, $69.95.** *RuffRiderHyperGain*™. 62½" gives whopping 5 dB gain on 7/8 wave 2 Meters. 5/8 wave, 7.6 dB gain on 440 MHz. 150 Watts. 5" magnet recommended. **MFJ-1436, $79.95.** *RuffRiderTripleThreat*™. 59 inches of stacked elements with high-Q phasing coils give you a whopping 7.2 dB gain on 440 MHz, 4.5 dB gain on 2 Meters and 2.15 dBi gain on 6 Meters. Work all your favorite bands! 150 Watts. 5" magnet mount recommended.

MFJ-1724B, $16.95. This is the world's best selling dual band 2 Meter/440 MHz magnet mount mobile antenna. *Free* BNC handheld adapter. Powerful 3½ inch magnet base, scratch resistant rubber guard, 19 inches tall. 15 feet of tough coaxial line with PL-259 connector. Handles 300 Watts. **MFJ-1728B, $29.95.** 5/8 Wave 2/6 Meters Magnet Mount gives maximum possible gain. Tall *SlimLine*™ radiator. Perfect for 2/6 Meter radios. **MFJ1729, $34.95.** *Power*Gain*™ Dual Band Magnet mount. Like MFJ-1724B but gives outstanding 2.6 dB gain on 2 Meters and 6.3 dB gain on 440 MHz. 27½ inch steel radiator. **MFJ-1721, $14.95.** *UltraLite*™ Mobile mag mount. RG-174U coax. 1/4 wave on 2 Meters. Less than 2 oz. 1/8 inch rare earth magnet -- tiny, but powerful! Thin 20 inch whip. **MFJ-1722, $18.95.** Dual Band *UltraLite*™. 5/8 Wave on 440 MHz. 1/4 Wave on 2 Meters.



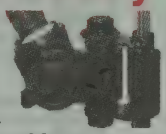
MFJ-1734, $39.95. Glass mount dual band 144/440 MHz mobile. 6 inch counterpoise mounted inside lowers SWR and makes tuning easy. Free BNC handheld adapter. Excellent gain on 440 MHz and 2 Meters. Low SWR lets your transceiver deliver full power safely. Exclusive 26 inch stainless steel radiator minimizes wind vibration for less SWR flutter. Gives longer range and better readability. Handles 50 Watts. Includes 12 feet of tough coaxial line, cleaning pad and mounting hardware. **MFJ-1738, $29.95.** 2 Meter mobile glass mount antenna.



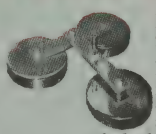
MFJ-916, $29.95. Duplexer lets you use a 2 Meter / 440 MHz antenna with separate 2 Meter and 440 MHz radios without a built-in duplexer. Diecast enclosure houses low pass networks that separate or combine 144/440 MHz signals. Low loss SO-239 and PL-259 connectors. Ports are 50 Ohms, unit handles 200 Watts PEP.

MFJ super heavy duty mobile antenna mounts

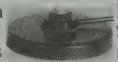
MFJ-345, $34.95. MFJ *Ruff Rider*™ Trunk/Hatchback Lip Mount. Extra-wide four inch lip and large reinforcing tabs on each side safely distributes load over your vehicle's lip. 2 large set screws on each end locks your mount in place. A scratch proof rubber guard protects your vehicle's finish. Secures large VHF/UHF and medium size HF antennas. Adjustable angles, SO-239. 10 feet low loss coax has PL-259 connector. Includes Allen wrenches and protection caps.



MFJ-340, $34.95. MFJ *RuffRider*™ Mirror/ Luggage Pipe Clamp Mount. Mount on support rod of mirror, luggage rack or spare tire carrier of your truck, van, RV or SUV (up to 5/8 in. diameter). Secures large VHF/UHF and medium size HF antennas. 2 axis of rotation let you position your antenna to any desired angle. Serrated swivel joint locks securely in place with huge 3/8 inch set screw. Convenient thumb/finger turn knob. SO-239, 10 ft. coax with PL-259.



MFJ-338S/T, $19.95. MFJ *Goliath*™ Tri-Magnet Mount has three super strong 5-inch magnets bolted to 1⅛ inch wide by 1/4 inch solid aluminum crossbars. 17 feet coax. Caution: once on, it's difficult to get it back off! MFJ-338S is for SO-239. MFJ-338T is 3/8".



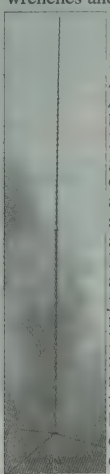
MFJ-335BS/BM, $19.95. 5 in. black mag mount w/17 ft. coax. SO-239(BS) or NMO(BM). **MFJ-333BS/BM, $14.95.** 3 in. black mag mount w/17 ft. coax. SO-239(BS) or NMO (BM).

MFJ-342, $9.95. 3/8 inch threaded HF antenna pipe /mirror mount fits MFJ's HF mobile *HamTennas*™ or any 3/8" style whips. Stainless steel clamps can mount to ¼ or ½" pipe. SO-239 connector w/lock washer feeds coaxial line underneath 3/8 inch connector. **MFJ-344, $9.95.** Similar to MFJ-342, but vertical mount for ⅜ inch antennas.

MFJ-343, $9.95. *GumDrop*™ 3/8" antenna hard mount. Tough, durable plastic, rubber seal protects finish.

MFJ-341S/M, $19.95. Hard mount coaxial line. SO-239(S) or NMO(M).

Pulsar™ VHF/UHF Base/Repeater Antennas



MFJ's *Pulsar*™ *Base/Repeater Antenna series* is built to last! Heavy duty fiberglass radomes and overlapping shells add strength and stability. Each antenna uses stainless steel hardware and waterproof joints to eliminate moisture and pollution from causing damage to your new antenna. Each features a super high wind load and can withstand the elements Mother Nature can dish out.

MFJ-1526, $99.95. *Pulsar ULTRA MightyGain*™ Dual Band 144/440 MHz Base/ Repeater Antenna. Our highest gain *Pulsar*™ antenna. Great 8.3 dB on 2 Meters and 11.7 dB on 440 MHz. 17 feet, shipped in two sections. SO-239 Connector, handles 200 W. **MFJ-1526N, $99.95.** Same as MFJ-1526, has "N" connector.

MFJ-1524, $79.95. *Pulsar Hyper MightyGain*™ Dual Band 144/440 MHz Base/ Repeater Antenna. You get high gain with little height. Just 10 feet tall. Features 6.5 dB gain on 2 Meters and 9 dB gain on 440 MHz. Shipped in two sections. SO-239 connector, handles 200 Watts.

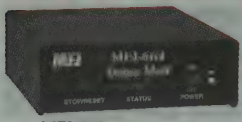
MFJ-1522, $89.95. *Pulsar Economy priced Dual Bander*™ Base/Repeater Antenna. Only 5.5 feet tall, but big on gain. Get 4.5 dB gain on 2 Meters and 7.2 dB gain on 440 MHz. Great for antenna restricted households and apartments. Easy to hide on balcony or backyard. Great price! SO-239 connector, handles 200 Watts.

MFJ-1516, $104.95. *Pulsar VHF Base Station*™. The ultimate 2 Meter Base/Repeater Station antenna! Great 7.8 dB gain is perfect for dedicated repeater or home use. 15 feet shipped in three sections. SO-239 Connector, handles 200 W.

MFJ-1536, $154.95. *Pulsar VHF Tri-Bander*™. The perfect base/repeater antenna for VHF work. Covers 2 Meters, 6 Meters and 440 MHz. You get 2 dB gain on 6 Meters, 6 dB gain on 2 Meters and 8 dB gain on 440 MHz. Only 8.2 feet, shipped in two sections. SO-239 Connector, handles 200 W.

MFJ-1532N, $129.95. *Pulsar VHFUHF and 1.2 GHz Tri-Bander*™ Base/Repeater Antenna. You get great VHF operation plus exciting 1.2 GHz! Great 4.5 dB gain on 2 Meters, 8.3 dB gain on 440 MHz and a whopping 11.7 dB gain on 1.2 GHz. Just 5.5 feet. Easily hides on balcony, small patio. Type "N" connect, handles 200 Watts.

MFJ Radio Voice Mail . . . Simplex Repeater . . . Voice Beacon



MFJ-664

$129.95

Ship Code A

Use MFJ's *all-in-one* multi-purpose radio pal for…

Two way radio voice mail lets you and your friends/family leave and retrieve voice messages for each other.

When in radio range, stay in touch 24 hours a day no matter where you are.

You can program custom access codes and security codes so you can decide who uses your *Radio Voice Mail*.

Greatly extends radio range by using another radio as a relay.

You can have your own private, portable repeater when coordinating public events, hunting, fishing, camping, hiking, or for a multi-vehicle road trip.

During a disaster, MFJ-664 can provide emergency communications when repeaters are down.

Test your own signal quality by repeating your transmission thru another radio.

Automatically repeat recorded message continuously. Great for determining band openings, for foxhunting and for public service announcements like hamfest directions, VE exam time/place.

Non-volatile memory lets you store up to 2 full minutes of voice messages.

Your keypad can be used for remote operation with Morse code verification of functions. Has end-of-message beep and output level control for clean audio.

Use 9 Volt battery or 9-15 VDC or 110 VAC with MFJ-1312B, $14.95. All metal cabinet is 4Wx3½Dx1½H in. 5 ounces.

Use any radio -- handheld, mobile, base, HF rigs (2 Meters, 440 MHz, business band, etc) -- with PTT or mic closure sensing. Ask about pre-wired cables for Icom, Kenwood, Yaesu, Alinco, Radio Shack, HTs, mobiles.

MFJ's handheld "Rubber Duck" antennas

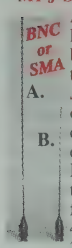
MFJ Telescopic HT Antennas

A. MFJ-1714, $16.95. *Long Ranger*™ 2 Meter 1/2 Wave. Collapsed, it performs like a rubber duck (10½ in.), fully extended (40 in.), it's an outstanding performer!

B. MFJ-1712, $14.95. Dual Bander 144/440 MHz. ¼ wave on 2 Meters, 5/8 wave with gain for 440 MHz. 7¼ in. collapsed, 19 in. extended.

C. MFJ-1710, $9.95. *PocketLinear*™. Pen size 3/8 wave for 2 Mtrs like a ball point pen with pocket clip. 5¼ in. collapsed, 24½ in. extended.

MFJ SuperFlex™ ThinDUCK Antennas



A. MFJ-1715, $24.95. Tie it in a knot . . . when you use it, it'll bounce back in shape -- you can't break them! This MFJ-1715 12½ inch *SuperFLEX*™ radiator is a ½ wave on 440 MHz -- gives a hearty 2.15 dBi gain. On 2 Meters, you get an efficient full size ¼ wave antenna.

B. MFJ-1713, $19.95. 5½" radiator is similar to MFJ-1715 except for gain on 440 MHz.¼ wave on 440 and efficient loaded ¼ wave on 2 Meters.

MFJ Back-of-radio 144/440 MHz Base

MFJ-1717PL, $24.95. Plug this MFJ *"back-of-radio"* antenna into your 2 Meter/440 MHz mobile or base rig in your shack. It may not be a ten element yagi but it'll get you out in a hurry! This fold-over dual band flexi-duck antenna with a quality PL-259 connector. Gives a hearty 2.15 dBi gain on 440 MHz and is a full-size 1/4 wave on 2 Meters. Hi-Q, low loss construction. 16½ inches, hard safety tip.

MFJSuperFlex™ HT Antennas

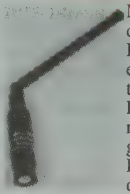
A. MFJ-1716, $16.95. Dual band 144/440 MHz Flex duck is similar to MFJ-1717. 7½ in. length, 1/4 wave on 440 MHz and loaded 1/4 wave on 2 Mtrs. BNC. Add "S" for SMA.

B. MFJ-1717, $21.95. MFJ's best selling HT antenna! High gain dual band for 144/440 MHz. Low SWR, hearty 2.15 dBi gain on 440 MHz, full size 1/4 wave on 2 Meters. BNC. Add "S" for SMA. Factory tuned for low SWR.

MFJ TeleFlex™ HT Antenna

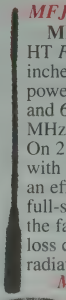
MFJ-1816, $9.95. This special HT antenna is both flexible and telescopic at the same time! It extends to improve your range, plus it takes all the bending, twisting and tugging you can dish out! Dual band, 144/440 MHz coverage with BNC connector. 6 inches long retracted, 8½ inches long extended.

MFJ Foldover Telescopic HT Antenna



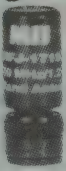
MFJ-1812, $19.95. This new dual band 144/440 MHz HT antenna combines telescopic and foldover features in a single antenna. Extends to improve your range plus it folds over to get out of the way of your gut. Helps protect it for years of dependable use. MFJ-1812 is just six inches retracted and 16 inches extended. High Q low loss construction, super durability for years of use.

MFJ Tri-Band 2/6/440 MHz FlexiDuck™



MFJ-1720S, $29.95. MFJ's Triple Band HT *FlexiDuck*™ antenna is a whopping 19 inches tall -- it's big enough to deliver a powerful signal for 2 Meters, 440 MHz, and 6 Meters! It's a 5/8 Wave on 440 MHz to give you a hearty 3.2 dBi gain. On 2 Meters you get a 1/4 Wave antenna with 2.15 dBi gain. On 6 Meters you get an efficient full size 1/4 Wave antenna for full-size performance. Precision-tuned at the factory for low SWR. High-Q, low loss construction gives you maximum radiated power. 10 Watts. SMA Connector.

MFJ SmallWonder™ HT Antenna

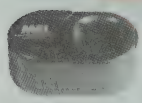


MFJ-1719, $19.95. *New* Small Wonder HT Antenna is truly remarkable for its size! Pound for pound, this is the best HT antenna around. You get remarkable performance from this super tiny (less than an inch tall) antenna. It's perfect for traveling and monitoring calls. It doesn't get in your way! Receives and transmits on 2 Meter/440 MHz. Also receives great signals at 1200 MHz. Choose from BNC or SMA connector. Order MFJ-1719S for SMA.

MFJ 2-Meter Pocket Roll-Up Antenna

MFJ-1730, $19.95. Roll up this 1/2 wave 2 Meter antenna and stick it in your pocket. At home, vacations, camping . . . it's easy to take it with you. Get home station performance *on-the-go*! Hang MFJ-1730 in the clear, plug the handy BNC connector into your handheld and enjoy some great QSOs. It's omni-directional and has significant gain over a ¼ wave. It doesn't need a cumbersome ground plane so it's convenient for indoors and works great with handhelds.

MFJ *RapidBattery*™ Ni-Cd/Ni-MH Chargers



MFJ-641 (K, I, Y), $49.95. *RapidBattery*™ Charger has both quick and trickle charging and will charge Ni-Cad or Ni-MH batteries. Has charging status LED indicators. Automatically switches from quick to trickle charge. Compact 3½x5½x3 inches. Universal interchangeable charging slots make charging several makes of HTs fast, simple and safe. Simply change the charger slot and pop in your battery. Your MFJ Charger is supplied with one charger slot. MFJ-641(I2) for BP-131/132; (I3) for BP-173/180; (Y2) for FNB-10/11/12/17/27; (Y3) for FNB-31/33; (Y4) for FNB-40/41/V47/V49; (K) for Kenwood PB and KNB battery types.

HT Antenna Window Mount

MFJ-310, $14.95. Gets your antenna outside where it can radiate freely -- takes away auto shielding effect and gives increased signal strength/reception. Use 144/440 MHz HT w/BNC. 10 ft.mini RG-58 coax.

MFJ-312, $9.95. Get your antenna up *in-the-air!* Clip this HT antenna extension cable anywhere! BNC connectors. 3½ ft mini coax.

MFJ Compact VHF/UHF SWR/Power Meters

MFJ-844, $69.95. Compact 3¾x3x1¼ inch 144/440 MHz SWR Wattmeter has 15, 60 and 200 Watt power ranges. SO-239 Connectors.

MFJ-840, $19.95. Reads power output of your 2 Meter HT into 50 Ohms. Check battery charge. 5 watts full scale. BNC.

MFJ-841, $39.95, Plugs between HT and antenna. Read SWR/power out to 5 Watts.

MFJ IntermodFighters™

MFJ-713, $59.95. Use between HT /antenna to eliminate intermod. BNC.

MFJ-714, $59.95. Plugs between your mobile rig and antenna coax. SO-239 connectors. Use 12 VDC.

MFJ mini Speaker Microphones for New Yaesu, Icom, Kenwood

MFJ-295 (Y, I, K)
$15.95
Ship Code A

Here's a top quality speaker mic that's perfect for those popular and tiny new Yaesu, Icom, Kenwood, Alinco, and ADI handheld transceivers.

Fits perfectly in your hand, but gives booming receive audio so you can monitor stations while the mic is attached to your lapel -- no more holding the speaker up to your ear!

MFJ uses a high-quality non-directional electret condenser microphone to give your Yaesu handheld crystal clear transmit audio.

The MFJ-295 Microphone has -53 dB sensitivity and 1K Ohm impedance. An excellent top-quality speaker produces 83 dB of crystal clear receive audio. Impedance is 8 Ohms.

Built-in earphone jack, top quality PTT thumb switch, 8-position swivel lapel clip, 3½ feet of durable, stretchable cord.

Made of high-impact plastic. Water resistant. All black microphone and cord. Protective bend points.

MFJ-295Y, Yaesu, Icom, single pin plugs like Yaesu VX-5R and Icom Q7A. **MFJ-295I**, Fits Icom and compatibles. **MFJ-295K**, Fits Kenwood and others.

MFJ *Deluxe Headset Microphone*™ adds professionalism

MFJ-288 (K, I, Y)
$24.95
Ship Code A

Walking through an airport, at home, or in your car, this MFJ deluxe headset gives you the ability to carry on a private QSO while doing other things.

The mic can pick up your voice, whether booming or at a quiet whisper when placed appropriately near your mouth.

The earphone gives superb tonal quality so even distant stations will come in loud and clear.

Made of sturdy black plastic and strong metal sliders, one size fits all!

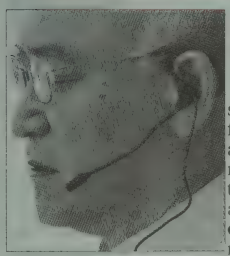
Superb speaker and mic foaming protects the mic and speaker elements as well as making the ear fit very comfortably. You could wear this headset all day long. It's perfect for mobile use with single ear design.

Small PTT switch can be conveniently attached to your shirt or pants pocket.

Has six feet of cord from headset to plug.

MFJ-288I fits ICOM, Yaesu (not FT-50R), ADI, Alinco, Radio Shack and other compatibles. **MFJ-288K** fits Kenwood and compatible handheld radios. **MFJ-288Y** fits VX-5R, IC-Q7A and compatibles.

MFJ *Featherweight* earbud *Boom Microphone*™



MFJ-293 (K/Y/I)
$24.95
Ship Code A

Finally . . . a secure and comfortable earbud and boom microphone that's as small and inconspicuous as your radio! *No more gaudy, oversized headsets or massive handheld speakermics!*

This tiny earbud features a secure and comfortable rubber flex earloop design and 5 inch flexible boom microphone that adjusts perfectly to your mouth. The earloop secures your earbud for a comfortable fit so there's no more worrying about it falling out of your ear.

It's perfect for monitoring your receive audio when you are in a loud environment. MFJ-293's special rubber flex earloop design adjusts to fit the right or left ear (big or small) very securely and comfortably.

Made of a sturdy black polyurethane and comfortable rubber earloop, it'll give years of dependable use. Tiny thumb-sized PTT switch is built right into the 6 feet of cord.

MFJ-293 (I) fits Icom and compatibles. MFJ-293 (K) fits Kenwood. MFJ-293 (Y) fits Yaesu FT10R/40R/ 50R/VX-1R, Icom IC-Q7A, other radios using single plug-ins.

Protected by MFJ's famous *No Matter What*™ one year limited warranty. MFJ will repair or replace for one full year.

New boom mic has built-in FM Scan Radio

New! **MFJ-284** is the same as MFJ-293, ***PLUS*** it has an FM Scan Radio inside in the tiny PTT switch that receives broadcast FM stations. This relaxing feature lets you catch up on the news or listen to music or sports programs while also monitoring your HT's operating frequency!

MFJ-284 (I, K, Y)
$39.95
Ship code A

MFJ-284 auto switches from FM radio to your HT's audio when the monitoring frequency is detected. Low/Max volume, on/off FM settings let you adjust to noisy conditions. Coin battery installed and one extra cell is included. **Order MFJ-284I** for Icom, **MFJ-284K** for Kenwood, and **MFJ-284Y** for Yaesu VX5R, Q7A series HTs.

MFJ *MightyMic*™ handheld speaker microphone

MFJ-294 (I, K, Y)
$16.95
Ship Code A

MightyMic™ is a super speaker microphone for those tiny and popular miniaturized handheld radios on the market today like Yaesu's VX5R and Icom's Q7A.

Tiny PTT thumb switch with speaker/microphone and lapel clip all fits between two fingers.

Tiny 19 inch retractable cord easily stretches to over 4 feet.

This is the perfect speaker/microphone for concealment. You'll look like an FBI agent when you work with this streamlined product!

An 8-position swivel lapel clip lets you position and secure the microphone to your shirt or coat comfortably.

MFJ-294I for Icom and compatibles, and older Yaesu HTs. MFJ-294Y for Yaesu newer models like VX-5R. MFJ-294K for Kenwood.

MFJ Featherweight Earphone/Mic

MFJ-292(I,K,Y)
$17.95
Ship Code A

MFJ's *Featherweight Earphone Microphone* has an earbud earphone and a tiny thumb-size microphone/PTT switch that's built right into the cord. It's barely noticeable and so lightweight you won't even know it's there. Get crystal clear receive/transmit audio out of an ultra lightweight (30 grams) speaker. Non-directional electret condenser mic has -64 dB sensitivity, 1.1K Ohm impedance. 4 foot cord. **MFJ-292I** fits ICOM, Yaesu and compatibles; **MFJ-292K** for Kenwood; and **MFJ-292Y** fits Yaesu FT-10R/40R/50R and VX-1R handheld transceivers.

MFJ Neckset Boom Microphone™

This MFJ Neckset Microphone doesn't mess up your hair! Naturally hidden from view behind your neck.

MFJ-282(I,K,Y)
$24.95
Ship Code A

Superb speaker and mic foaming protects the mic and speaker elements as well as making the ear fit very comfortable. A mic element is attached to the neckset with flexible extension.

Small PTT switch can be conveniently attached to your shirt or pants pocket.

MFJ-282I fits Icom, MFJ-282K fits Kenwood, MFJ-282Y fits Yaesu VX-5R and Icom Q7Apin radios.

CLOSEOUT!
SPEAKER MICS

MFJ-287 for Kenwood
MFJ-286 for Kenwood
MFJ-285W for Icom W-32
MFJ-285WC for Alinco
Credit Card Radio only
$9.00 *EACH!*
Ship Code A

New! MFJ Simplex Pocket Repeater™

MFJ Simplex Repeater extends range of any radio -- 2 Meter, 440 MHz, handhelds, mobile, base! Super easy-to-use . . . Just plugs in . . . Pocket-size . . . Records/Plays back 32-second messages . . .

MFJ-662
$79.95
Ship Code A

When you and your buddy are out of radio range, this MFJ *Simplex Pocket Repeater*™ greatly extends your range.

You can have your own private, portable repeater within your neighborhood or when hunting, fishing, camping, hiking, caravaning on-the-road.

During a disaster, your MFJ-662 can provide emergency communications when repeaters are down.

You can communicate way beyond the normal range of your handheld or mobile.

Works with virtually any radios in any mode or frequency in any ham band or business band. *It's legal!*

HT #1	→	HT with MFJ *Simplex Pocket Repeater*™	→	HT #2
(Out of range of HT #2)		(Digitally records message from HT #1 and re-transmits to HT #2 on same frequency and vice versa).		(Out of range of HT #1)

As a simplex repeater, the MFJ-662 with another radio digitally records audio from an out-of-range HT/Mobile and then re-transmits to other HT/Mobiles.

Tiny, pocket-size 2¼Wx3¾Hx1D inches.

Repeats up to 32 second message. LED lights when recording. On/Off switch. 5-pin header for radio cable (connector included). Use 9 volt battery, 9-15 VDC or 110 VAC with optional MFJ-1312B,$14.95.

Pre-Wired Cables for Icom, Kenwood, Yaesu, Alinco, Radio Shack, HTs/mobiles, $15.95 each. *See MFJ-5000 series cable with X suffix under PK-232 column on page 34.* **Open-end** cables with radio connectors, $9.95/$4.95 each--*See cable page.*

MFJ ClearTone™ Communication Speakers

World's most popular Speaker!

MFJ-281
$12.95
Ship Code A

Plug in this MFJ *ClearTone*™ speaker and bring out speech fidelity that you never knew existed.

It restores the smooth sound of sinewaves that CW naturally generates and makes it easy to copy.

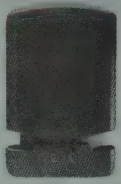
The MFJ-281 *ClearTone*™ speaker was carefully designed to improve the intelligibility of speech in the frequency range of 600 to 4000 Hz while reducing undesirable noise, static and hum.

Handles 8 Watts. 8 Ohms, 6 ft cord, 3.5 mm mono plug. Tiny, compact 3¾x3x2¼ inches, but booming sound!

Amplified Speech Enhancer

Optimized for the 600 to 4000 Hz communications frequencies and features MFJs exclusive *SpeechEnhancement Control*™ to maximize intelligibility in all modes.

MFJ-384
$29.95
Ship Code A



Solidly constructed of heavy duty crush-resistant material. Rugged enough to withstand abusive wear and tear of portable use.

Use it as an amplified speaker or turn it off and it becomes a quality station speaker.

Quality three inch speaker with heavy duty magnet. 3 ft. cable with 3.5 mm plug. Volume control. Use 2 "C" cell batteries (not incl.) or 110 VAC optional adapter, MFJ-1306, $14.95. 4½Wx5¾Hx3¼D in.

MFJ Deluxe Communications Station Speaker

MFJ-385
$39.95
Ship Code B

MFJ brings you ultra high quality communications audio with ham radio's most advanced communications speaker.

How? By using . . . *America's most modern speaker design technology, Advanced speaker cone and voice coil materials and construction, and a carefully designed, acoustically rigid cabinet.*

You won't believe the clarity and depth of your audio when you hear the incredible improvements in speech intelligibility and CW tone. It also reduces listening fatigue. It'll literally transform your transceiver into a studio monitor!

The smooth, wide range response of the MFJ-385 gives you absolute faithful reproduction with no hint of unwanted resonances and sound coloration.

Speech suddenly becomes more articulate, more intelligible and easier to understand. Pure sine wave tones of CW sound like music and makes accurate copying easier and faster. It makes tuning signals in correctly easier and faster.

You'll instantly recognize your ham buddies' voices when they use their full range microphones. Experience the full rich fidelity of SSB, AM, FM and CW that you'll never hear with your rig's built-in speaker. MFJ's famous one year *No Matter What*™ warranty.

Amplified ClearTone™ Speaker

MFJs Deluxe *ClearTone*™ is an excellent 1 Watt amplified speaker for QRP, base station HT users, or mobile operation with radios requiring more volume.

MFJ-382
$39.95
Ship Code A

MFJ-382 gives superb, loud and powerful *ClearTone*™ audio. Speaker is 3 inches. Adjustable from barely audible to high volume, this rugged speaker is sturdy and compact. All metal cabinet with rubber feet. 3½x1¾x4½ in.

On/off button, uses 9 volt battery (not included) or 110 VAC with optional MFJ-1312B, $14.95. Speaker cable included.

MFJ Compact Mobile Speaker

Enjoy superb audio and convenience with this economical mobile speaker.

MFJ-280
$19.95
Ship Code A

Just set the magnetic base on a metal surface, plug in the 3.5 mm phone plug and enjoy crystal clear receive audio!

Matches 8 and 4 ohm impedances. Handles 3 Watts. 30 inch cord. Tiny 2½x2x3 inches.

14-in-1 Ham Radio Tool

MFJ-7604, $4.00! This 14-in-1 pocket-size toolbox is all you need for putting up your antennas or working on rigs. Needle-nose pliers with wire cutters, jaws for gripping, flathead and Phillips screw drivers, knife, ruler, file, punch, more! Stainless steel, belt carry case.

HamGear™ HT Pouches

MFJ-18, $29.95. Radio chest harness hold your HT or cell phone snugly for no worries, hands-free operation. Great for rugged action use like DX peditions, field day, biking, hiking, hamfests, search & rescue. Accessory pockets. **MFJ-15, $14.95.** Durable HT radio pocket with elastic cord and velcro closure.

HamGear™ Waistpak

MFJ-6200, $15.95. This MFJ waistpack is the perfect hamfest, DXpedition or field day hands-free carryall. Amazing 9 spots to put your ham radio gear, tools, accessories, refreshments.

The world's most powerful multi-mode data controller!

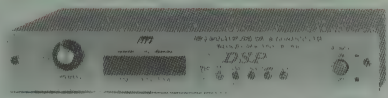
PSK31 with MFJ-1289H

The world class MFJ-1278B with built-in "brick wall" DSP filters, GPS compatibility and ten digital modes gives you *ham radio's most powerful multi-mode* data controller with all of these popular features!

You won't believe your eyes when you see solid copy from signals completely buried in QRM! The MFJ-1278B/DSP, your transceiver and computer are all you need for exciting digital QSOs! You'll discover a whole new world of ham radio. You'll communicate in ways you never knew existed!

You'll marvel at full color FAX news photos as they come to life on your screen, and you'll see weather changes on highly detailed weather maps in all 16 gray levels. Eavesdrop on late-breaking news!

You'll have fun joining worldwide Packet networks and exchanging color SSTV pictures with your buddies.



MFJ-1278B/DSP **$389.95** Ship Code B

MFJ-1278B (no DSP) **$309.95** Ship Code B

You'll enjoy error-free HF QSOs on PACTOR AND AMTOR and enjoy receiving packet mail in your mailbox.

Want to copy some CW? Just relax and read your screen.

MFJ-1278B/DSP gives you DSP and 11 digital modes -- PSK31, Packet, PACTOR, AMTOR, RTTY, Color SSTV, 16 Gray Level Fax/Weather FAX, ASCII, Navtex, CW, Memory Keyer and is GPS compatible. Order today, get the most powerful multi-mode data controller in ham radio!

MFJ-1278BT, $339.95, gives you a built-in 2400 baud modem. Runs high speed packet without modifying your radio. Operate 300/1200/2400 baud packet.

Optional MFJ-1278/B Accessories

MFJ-1289H, $69.95. Host program supports all digital modes plus PSK31. Syncs with popular logging programs. Tool bar, Hotkeys, user-defined macros, more!

MFJ-1289W, $59.95. *MultiCom™ for Windows*. Control 2 TNCs at the same time in separate windows!Send, receive *true color* SSTV Scotty 1, Scotty 2, Martin 1, Martin 2, and Robot 72 pictures. Great Multi-gray level FAX pictures and weather maps, Packet BBS, *PacketCluster™*,

MFJ-43, $19.95. Real-time clock.

MFJ-44, $14.96. Plug-in scope tuner.

MFJ-780, $99.95. Plug-in DSP board.

New Low Price! MFJ-2400, $19.95. 2400 baud packet modem. With faster communication, lessen congestion on crowded bands. Your TNC still gets 300/ 1200 baud for compatibility with other TNCs.

The world's *most reliable* VHF/HF Packet TNC

MFJ-1270C, $129.95, has a reputation as *the most reliable TNC in the world!*

Thousands are dedicated as digipeaters, nodes, BBS and used in all kinds of commercial applications working 24 hours a day -- many over a decade old are still in service.

All software and hardware designed for the TAPR TNC-2 standard works with the MFJ-1270C without modification, including NETROM, theNET, X1J, Rose Switch..

A true DCD circuit drastically reduces sensitivity to noise and dramatically increases completed QSOs.

MFJ *Anti-Collision™* Technology prevents packet collisions and improves performance on busy channels.

32K RAM, IC sockets for easy service. 256K ROM, speaker jack, lithium battery backup, RS-232 and TTL serial ports, radio cable (you add a connector for your radio).

MFJ-1284H, $49.95. *MultiCommHost™* for packet only. 32-bit software for true multi-tasking in windows. Includes PSK31!

MFJ MultiCommHost™ Software

MFJ brings you the world's first *32 bit* terminal software for MFJ's TNC family and other TAPR TNC2s.

MFJ *MultiComm Host™* software gives you true multitasking in *Windows* 95, 98, NT, 2000 and forthcoming XP! ***INCLUDES PSK31!***

Uses standard Windows commands. ***Adds PSK-31 support!*** Syncs with popular logging programs. All modes and features are just a mouseclick away! Hotkeys, user defined macros, interface to all of the current callbook CDs, quick connects, more!

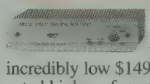
MFJ-1289H, $79.95. *MultiCommHost™* software for MFJ Multimode TNCs.

MFJ-1284H, $49.95. Packet only Host mode software for MFJ-1270C.

For additional information go to: ***http://www.mfjenterprises.com . . .*** you can download a *free* Demo Version before buying the real thing!

• For MFJ-1270/1276/1278 TNCs and TAPR TNC2 with 1.1.x firmware/BLP Host Mode.

MFJ *PacketOnly™* transceivers



Why tie up your expensive 2 Meter rig on a single packet channel? For an incredibly low $149.95, you can enjoy dedicated high performance packet from 1200 to 9600 baud on 2 Meters, 24 hours a day!

MFJ's *PacketOnly™* data radios are compatible with all TNCs with hardware DCDs and most TNCs with software DCDs.

Getting started couldn't be easier--just plug in an appropriate TNC cable (also available), your antenna, 12 VDC and you're ready to enjoy error-free packet!

MFJ-8621, $149.95. Ready-to-operate on 145.01 MHz. Order other plug-in crystals for just $24.95 per frequency.

MFJ-8621X2, $159.95. Ready-to-use for APRS. Crystals pre-installed and transceiver precisely aligned. 145.79 MHz.

MFJ-8631, $169.95. *PacketOnly™* 220 MHz. Has all the features of the 2 Meter version, ready-to-operate on 223.700 MHz.

MFJ-9606X, $169.95. Voice or packet with MFJ's new 6 Meter *FM Communicator™* Transceiver. Crystalled for 52.525 MHz calling frequency. Easy crystal re-channel.

MFJ TNC/Microphone Switch

MFJ-1272B/M **$39.95** Ship code A

***Switch** between your TNC or Mic by pushing a button!*

Plug these pre-wired cables into your rig's microphone connector and into your TNC and you are ready to go -- no more hard-to-find connectors and wiring up cables -- no more plugging and unplugging to work voice or packet!

Works with HF, VHF and UHF radios with 8 pin mic connectors -- including Kenwood, ICOM, Yaesu, Alinco, Radio Shack, and others.

Plug-in jumpers let you quickly set-up for any radio. Factory set for Kenwood and Alinco.

Includes easy-to-follow instructions. Has audio-in and speaker jacks. Compact $3^1/_4$x$1^1/_4$x4 inches.

MFJ-1272B/M, $39.95, for MFJ TNC/multimodes, TAPR TNC-2 clones. **MFJ-1272BX/MX, $39.95**, for PK-232. **MFJ-1272BYV/MYV, $39.95**, for KAM VHF port/KPC3. **MFJ-1272BYH/MYH, $39.95**, for KAM HF port/KPC3.

Pre-wired Radio to TNC Cables

New accessory port cables, $19.95 each. **MFJ-5063** (Icom HF 8 pin to TNC2s). **MFJ-5064** (IC VHF 8 pin to TNC2s). **MFJ-5065** (IC-706 13 pin to TNC2s). **MFJ-5060** (Ken, Yaesu, Azden 6 pin mini to TNC2s). **MFJ-5066** (Ken 13 pin to TNC2s).

Pre-wired Radio-to-TNC cables . . . $15.95

TNC TYPE / Radios	All MFJ TNCs and Multimodes	KAM VHF[5]/ KAM HF[5]/ KPC3[6]/ KPC9612[7]	PK-232	PK900/PK96/ PK12/DSP232 /PacComm/ other TNC2 compatibles
Alinco[1]/Strd HT	MFJ-5022	MFJ-5022YV	MFJ-5022X	MFJ-5022
Icom[2]/Yaesu/ *RadioShack HTs*	MFJ-5024	MFJ-5024YV	MFJ-5024X	MFJ-5024B
Kenwood[2] HTs	MFJ-5026	MFJ-5026YV	MFJ-5026X	MFJ-5026
Yaesu 8-pin	MFJ-5080	MFJ-5080YV MFJ-5080YH	MFJ-5080X	MFJ-5080Z
Icom[3] 8-pin	MFJ-5084	MFJ-5084YV MFJ-5084YH	MFJ-5084X	MFJ-5084Z
Kenwood/Alinco 8-pin	MFJ-5086	MFJ-5086YV MFJ-5086YH	MFJ-5086X	MFJ-5086Z
Yaesu 8-pin modular	MFJ-5080M	MFJ-5080MYV	MFJ-5080MX	MFJ-5080MZ
Icom[4] 8-pin modular	MFJ-5084M	MFJ-5084MYV	MFJ-5084MX	MFJ-5084MZ
Kenwood 8-pin modular	MFJ-5086M	MFJ-5086MYV	MFJ-5086MX	MFJ-5086MZ
Radio Shack 8-pin modular	MFJ-5088M	MFJ-5088MYV	MFJ-5088MX	MFJ-5088MZ

1. does not include IC-W2A
2. does not include 2500
3. does not include 25A, 255A
4. does not include IC-100H, IC-2700H
5. YV for KAM VHF port, YH for KAM HF port. *Other Kantronics use YV*
6. YV for KP9612 1200 baud port
7. YH models for KPC9612 *9600 baud port*
8. Excludes DJ-100, 120T, 200, 500

Pre-Wired Radio to Computer Interface Cable

Convenient pre-wired transceiver to computer interface cable has DB-9 serial interface built-in! Order Kenwood -- **MFJ-5383K**, $49.95; ICOM-- **MFJ-5383I, $49.95**; Yaesu-- **MFJ-5383Y, $49.95** (for standard 6-pin DIN), **MFJ-5383YB, $49.95** (for 6 pin Mini DIN). 25-pin RS-232 serial port adapter included. Newer radios may not require these cables. Check with manufacturer.

Tap into Secret Shortwave Signals

Turn mysterious signals into exciting text messages with this MFJ MultiReader™

MFJ-462B
$179.95
Ship Code A

Ever wonder what those mysterious chirps, whistles, and buzzing sounds are on the shortwave bands?

Much of it is RTTY, ASCII, CW and AMTOR (FEC) signals passing commercial, military, diplomatic, weather, aeronautical, maritime, amateur and other traffic.

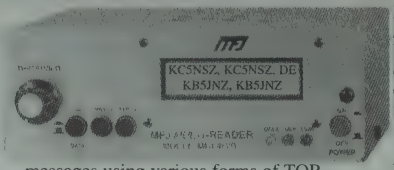
Tap into these "secret" signals

Plug this self-contained MFJ *MultiReader*™ into your shortwave receiver's earphone jack. Then watch these mysterious signals turn into exciting text messages as they scroll across an easy-to-read LCD display. No computer, interface, special cables or other equipment is needed.

Eavesdrop on the world!

Eavesdrop on the latest breaking news as press agencies from all over the world relay them on RTTY -- it's like having a private wire service in your home. Copy RTTY weather stations from Antarctica, Mali, Congo and many others.

Listen to military traffic passing from Panama, Cyprus, Peru, etc. Catch diplomatic, research, commercial and maritime traffic. Listen to maritime users, diplomats and amateurs send and receive error free



messages using various forms of TOR (Telex-Over-Radio).

Monitor Morse code communications from hams, military, commercial, aeronautical, diplomatic and maritime coastal stations from all over the world.

There's plenty of exciting non-voice traffic on shortwave that'll keep you fascinated . . . traffic you can't read unless you have a decoder.

Printer monitors 24 hours a day

MFJ's exclusive *TelePrinterPort*™ lets you monitor any station 24 hours a day by printing their transmissions. Plug your Epson compatible printer into the MFJ-462B printer port and you're ready to print.

MFJ MessageSaver™

Save several pages of text in 8 K of memory for later review or re-reading.

High Performance Modem

Consistently get solid copy from MFJ's high performance *PLL* (phaselock loop) *modem technology*. Digs out weak signals buried in noise and even tracks slightly drifting signals. Mark and space tones are copied to give you greatly improved decoding under adverse conditions.

Easy to use, tune and read

Just push a button to select modes and features from a menu. A precision tuning indicator makes tuning your receiver for best copy on all modes quick and easy.

The 2 line 16 character LCD display has contrast adjustment. One line comes in at speed of signal, second line is delayed so you catch every exciting word!

Copies standard shifts and speeds

Copy most standard shifts and speeds in all modes. MFJ's *AutoTrak*™ automatic Morse Code speed tracking helps MFJ-462B to track and decode high speed CW.

MultiReader™ Accessories

Use 12 VDC or use 110 VAC with MFJ-1312B AC adapter, $14.95. MFJ-462B measures 6¼Wx2½Hx6¼D inches.

MFJ-5162, $5.95. *Receiver cable* connects MFJ *MultiReader*™ to your radio's external speaker (3.5mm jack).

MFJ-5412, $9.95. *Printer Cable* is 25-pin cable for Epson compatibles.

Micro Video Amateur ATV Transmitter

Transmit live video on 70 cm (433.97 MHz, cable channel 59) and use your cable ready TV set as a complete ATV station! Show your shack, rigs, antennas, family, vacation trips, hamfests. Give live seminars, lectures, demos, Put ATV on your radio controlled model airplanes, cars, boats, rockets. Great for RACES, Sporting Events like races, ballgames, parades . . .

This tiny *MFJ Micro ATV Transmitter*™ lets you transmit a high quality Amateur Television video signal on 433.97 MHz (cable channel 59). All you need to do is plug in an antenna and a video source -- your camcorder, camera, VCR or other.

With an antenna and a TV set (or down converter/ TV) tuned to cable channel 59 you'll have a *complete ATV video station*.

The MFJ-8704 puts out a solid 50-100 mW signal. By using a suitable UHF power amplifier and high-gain antenna, you can enjoy two way ATV communications over many, many miles with fellow ATV hams.

Show your shack, rigs, antennas, family, vacation trips, hamfests. Give live seminars, lectures, demos. Put ATV on your radio controlled model airplaines, cars, boats, rockets. Great for RACES, sporting events like races, ballgames, parades, hat cam. Wear a tiny video camera on your hat and you can transmit a hamfest live as it happens and record it remotely.

It's super easy-to-use. To transmit video simply connect video to the RCA phono connector and antenna to the BNC connector and connect a 9 volt battery or other 9 VDC source.

You can use any standard NTSC or PAL composite video (1V pk-pk) source.

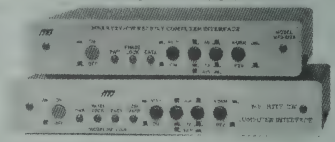
The MFJ *Micro ATV Transmitter*™ can only be operated by a Technician class or higher licensed Radio Amateur. All transmissions must be directed to at least one other licensed Radio Amateur.

Warning: For Amateur Radio Use only.

Multimode Computer Interfaces

MFJ-1213, $49.95. Computer interface includes JVFAX and HamComm software. Receive/decode digital data with your radio. Color FAX/SSTV pictures, Baudot, ASCII, AMTOR, ARQ/FEC, SITOR, NAVTEX, SHIP and SYNOP.

MFJ-1214PC, $149.95. Complete package receives and transmits RTTY, ASCII, CW, also WeFAX weather maps with all 16 gray levels. Complete package includes software, power supply & cables.



MFJ-1224, $99.95. Turns your IBM compatible into a RTTY, ASCII, and CW station for transmitting and receiving with your HF/VHF rig. Built-in tuning indicator, normal/ reverse switch, plugs between rig and computer.

MFJ-1285, $19.95 for MFJ-1224 and IBM compatible computers. **Software** includes cable, disk and manual. DOS systems only.

MFJ-1225, $69.95. Same as MFJ-1224, but for receive only. **MFJ-1285B, $19.95** for MFJ-1225, IBM compatibles.

Indoor *tuned* Active SWL Antenna, 0.3 to 30 MHz

MFJ invented the tunable active antenna! New technology uses dual gate MOSFET and a gigahertz bandwidth buffer.

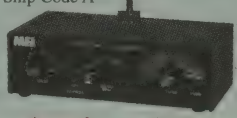
MFJ invented the tunable active antenna! Numerous copies have been made without success -- including most recent ones.

Why? Because MFJ has made continuous improvements where others have not. The MFJ-1020C has been completely rede-signed with new technology.

MFJ-1020C
$79.95
Ship Code A

New technology uses a dual gate MOSFET and a gigahertz bandwidth buffer.

It improves gain and selectivity, reduces noise and intermod, and is NOT prone to self-oscillations that can severely damage your receiver.



With the MFJ-1020C tuned indoor active antenna you'll rival reception of outside wire antennas hundreds of feet long and pick up signals loud and clear from all over the world.

The prestigious ***World Radio TV Handbook*** says MFJ-1020 is a *"fine value . . . fair price . . . best offering to date . . . performs very well indeed."*

MFJ's unique tuned circuitry minimizes intermod, improves selectivity and reduces noise outside the tuned band.

You can also use it as a tuned preselector with an external antenna.

It covers 0.3 to 30 MHz including VLF, AM broadcast, all shortwave and all amateur radio bands.

MFJ-1020C has Tune, Band, Gain, On-Off/Bypass controls and SO-239 coax connectors. Use 9 volt battery, 9-18 VDC or 110 VAC with MFJ-1312B, $14.95.

Measures a compact 5x2x6 inches. Includes telescoping whip.

54" Outdoor Active Antenna

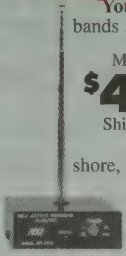
MFJ-1024
$139.95
Ship Code B

"World Radio TV Handbook" says MFJ-1024 is a *"first rate, easy-to-operate active antenna . . . quiet . . . excellent dynamic range . . . good gain . . . very low noise factor . . . broad frequency coverage . . . excellent choice . . ."*

Mount it outdoors away from electrical noise for maximum signal and minimum noise. Has convenient mounting holes for easy installation. **MFJ-1024** covers 50 KHz to 30 MHz.

Receives strong clear signals. 20 dB attenuator, gain control, ON LED. Switch selects two receivers and auxiliary or active antenna. Control unit is 6x3x5 inches. Remote unit has 54 inch telescopic whip, 50 feet of coax and connector. 3x2x4 inches. Use 12 VDC or 110 VAC with MFJ-1312, $14.95.

Compact 0.3 to 200 MHz antenna



Your ham band only antenna does great in the ham bands . . . but plug this MFJ all band active antenna into your radio and hear strong clear signals from all over the world from 300 KHz to 200 MHz -- including low, medium, shortwave and VHF bands.

MFJ-1022
$49.95
Ship Code A

You'll enjoy up-to-the-minute international shortwave newscast, ship-to-shore, airline, commercial RTTY and others.

It also improves weak noisy scanner radio reception from high to low band VHF -- hear signals you couldn't hear before.

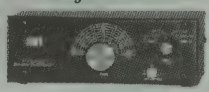
A J-310 FET handles strong signals and noiseless feedback circuit gives you excellent low noise reception. 4.5 GHZ MRF-901 transistor lets you receive really weak signals well into VHF. Take it anywhere -- it's so tiny it fits in your pocket!

Has on/off switch, power on LED, SO-239 coax connector and detachable 20 inch telescoping antenna. Uses 9 volt battery or 110 VAC with MFJ-1312B, $14.95. 3x1¼x4 inches.

MFJ high dynamic range *Passive Preselector* can't overload

Protects your receiver from overload damage, greatly reduces intermod, blocking and cross-modulation

MFJ-1048
$119.95
Ship Code A



MFJ's new Passive Preselector has extremely high dynamic range! ***NEW!***

It improves the performance of nearly any HF or shortwave receiver/transceiver. It vastly improves the most expensive receivers. Especially helpful to those with broadband front-ends that are prone to overload.

Protects your sensitive receiver input from damage (including switching diodes and attenuator resistors) caused by very strong signals from multi-transmitter, multi-band operation -- contests, field-day, nearby hams, CBers, TV/FM/AM stations.

It eliminates phantom signals by suppressing strong out-of-band signals that cause intermod, blocking and cross modulation. Completely eliminates second order intermod problems caused by strong out-of-band shortwave broadcast signals mixing and producing unwanted in-band signals.

MFJ's unique Hi-Q series tunable circuit gives you superb performance. The tunable series tuned circuit works into a very low impedance formed by broadband toroid transformers.

Has narrow bandwidth, excellent stop-band attenuation, very low loss, constant bandwidth and gain over each band. Excellent attenuation in adjacent contest bands.

The entire 1.6 to 33 MHz HF band is covered in five overlapping bands.

An air variable tuning capacitor, 1.8 to 1 tuning range and a vernier reduction drive gives you precision tuning.

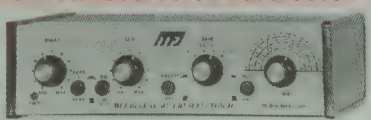
An RF sense transmit/receive switch with adjustable time delay automatically bypasses your MFJ-1048 when you transmit. Also has PTT line T/R switching. Plugs between antenna and transceiver.

Fully shielded metal enclosure. Tough black finish. 7½x2½x3¼ in. Use 12 VDC or 110 VAC with MFJ-1312B, $14.95.

MFJ-1046, $99.95. Same as MFJ-1048 but less RF sense/PTT line bypass.

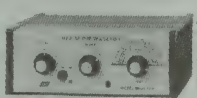
MFJ All Band Transceiver/Preselector

MFJ-1040B
$99.95
Ship Code A



Lets you copy weak signals. Rejects out-of-band signals, images. 1.8 to 54 MHz. Up to 20 dB gain. Gain control. Dual gate MOSFET, bipolar transistors for low noise, high gain. 20 dB attenuator. Connect 2 antennas, 2 receivers. Coax and phone jacks. Automatic bypass when transmitting to 350 watts. Delay. Jack for Push-to-talk. 9-18 VDC or MFJ-1312, $14.95.

MFJ-1045C
$69.95
Ship Code A



MFJ-1045C, $69.95. No attenuator, Transceiver auto bypass, delay or Push-to-talk.

Receiver Antenna Tuner/Preamplifier

MFJ-959B
$99.95
Ship Code B

Don't miss rare DX due to signal power loss between your receiver and antenna. The MFJ-959B provides proper impedance matching so you can transfer maximum signal from antenna to receiver. Covers 1.6 to 30 MHz. 20 dB preamp with gain control boosts weak stations. 20 dB attenuator prevents overload. Select from 2 antennas and 2 receivers. Measures 9x2x6 inches. Use 9-18 VDC or 110 VAC with optional MFJ-1312, $14.95.

MFJ-956 LW/MW/SW Preselector/Tuner

MFJ-956, $49.95. Boost favorite stations while reject- ing images, intermod and phantom signals. Greatly im-proves reception from .15-30 MHz, especially below 2 MHz. Tuner bypass/ground receiver positons. Compact 2x3x4 in.

MFJ Shortwave *Regenerative* Receiver Kit

MFJ-8100K
$69.95
Ship Code A

Remember hunching over your regenerative receiver for hours with a pair of phones pressing uncomfortably against your ears?

You could hear just about anything that fancy superhets could hear. Sure, you had to play around with the regeneration control just right and have a steady hand to tune but you could hear 'em . . .

Don't you wish you could relive some of this fun and excitement of your youth -- share some of it with your kids and grandkids? Well, you can -- with the MFJ-8100 World Band Shortwave Radio Kit.

Spend a fun evening with your child or grandchild and help him put this simple kit together. When the two of you finish,

watch him glow with excitement as he tunes the world bands -- just like you did -- and remeber for life. It might even inspire him into a career in electronics.

This baby performs. A RF stage really picks up the weak ones and it goes into regeneration smoothly without pops or dead spots. Stations all over the world will come in loud and clear with a 10 ft wire antenna.

With a 10 foot wire antenna, you'll be amazed at what you can hear -- stations all over the world will come in loud and clear.

Listen to international shortwave broadcasts, hams on SSB and CW, WWV, RTTY, packet and much more. Covers all or part of 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15, 13 Meters in five bands.

Range A covers: 3.51-4.31 MHz, Range B: 5.95-7.40 MHz, Range C: 9.56-12.05 MHz, Range D: 13.21-16.4 MHz, and Range E: 17.6-22 MHz.

Has vernier reduction drive, bandswitch, volume/RF gain controls, uses 9V battery and built into a rugged aluminum cabinet.

Two earphone jacks let you and your child or grandchild listen together with your Walkman style earphones or plug-in speakers. Measures 7x6x2½ inches.

Order one as a special gift or for yourself: **MFJ-8100K, $69.95** kit; **MFJ-8100W, $89.95,** wired and tested unit.

MFJ Shortwave Radio Communication Headphones

MFJ-392
$19.95
Ship Code A

MFJ-392 is perfect for amateur radio and shortwave radio listening. Great for all modes -- SSB, FM, AM, data and CW. Each phone has an individual volume/speech enhancement controls.

Superb padded headband and *ear cushioned* design makes listening extremely comfortable. You'll forget they're even there as you listen to stations all over the world!

High-performance 40 mm driver unit reproduces enhanced communication sound. Signals never sounded so *crystal clear!*

MFJ-392 will bring out speech fidelity you never knew existed. Has free ¼ inch phono adaptor.

Near *zero loss* on signal transmission from the gold plated plug and cord. Super lightweight earphones (8 ounces) come with 9 feet of cord -- lets you easily move about and still listen to your radio.

MFJ-392 handles 450 mW and has a frequency response of 100-24,000 Hz. Impedance is 16 Ohms at 1 KHz, sensitivity is 102 dB/mW. Works in mono or stereo mode. MFJ's *No Matter What*™ warranty.

MFJ 21 Band Shortwave World Receiver

NEW!

MFJ-8121
$39.95
Ship Code A

MFJ's new World Band Receiver lets you travel the world from your armchair . . . for an incredibly low $39.95!

Listen to BBC news from London, live music from Paris, soccer matches from Germany, cultural programs and more!

Introduce your children to the *real* cultures of the world as other nations tell it *live* on world band radio.

Built-in telescopic antenna (6 inches retracted, 26 inches fully extended) and a *Sony® integrated circuit* from Japan brings in stations loud and clear all over our world.

Multicolored tuning dial makes it easy to tune to your favorite station. An LED tuning indicator turns bright red when your desired station is tuned in.

Detailed World Time Zone and frequency charts are permanently silkscreened on the back panel. Informs for quick band changes and lets you decide where to explore next.

Large built-in 3 inch speaker gives you plenty of room filling volume. Speaker is disconnected when you use your earphones.

MFJ-8121 operates on 6 VDC or four easy-to-install "AA" batteries (not included). Super compact size (4½Hx7Wx1½D inches) and a handy wrist carrying strap lets you take it with you anywhere to use any time! **Optional AC power supply, MFJ-1306, $14.95.** ***Great for hotel travels!***

MFJ Airband or Marine/Wedter Digital Receivers

MFJ-8218, $39.95. PLL Digital Auto Tuning with frequency up/down buttons, 30 preset memories -- 10 for the Air-Band! Last station tuned in is retained automatically!

MFJ-8218 has a built-in (mono) speaker, built-in telescopic antenna, Low Battery Warning Indicator, Key-Lock Function, more.

MFJ-8218 receiving frequency range is **AIR:** 108.000-140.000 MHz in 25 kHz steps.

Uses two AA batteries (not incl.) or has 3 VDC jack for external power source. Super tiny -- fits in the palm of your hand easily!

MFJ-8214, $39.95. Digital tuning LCD marine/Weather Receiver.

2 Meter Repeater Monitor Receiver Kit

MFJ-8400K
$79.95
Ship Code A

MFJ-8400W
$99.95
Ship Code A

MFJ-8400K has a low noise, high gain RF preamp that gives you an excellent 0.1 microvolt sensitivity -- lets you hear weak signals loud and clear.

An air variable tuning capacitor with a velvet smooth 8:1 reduction drive makes tuning easy and comfortable with no noticeable drift.

Dual conversion superhet receiver with sharp ceramic filters, crystal controlled second oscillator gives great selectivity, stability.

A 19 inch ¼ wave telescopic whip antenna is included. External groundplane or Yagi can be plugged in so you can reach out and pull in distant stations and outlying repeaters.

Has tune, squelch, volume controls, built-in speaker, high quality components with glass epoxy PC board and attractive all metal cabinet. Uses 9 volt battery, 9-12 VDC or 110 VAC with optional MFJ-1312B, $14.95. Measures 4¼Wx2Hx4D inches.

World Band Explorer™ radio Converter

MFJ-306
$89.95
Ship CodeA

This MFJ-306 *World Band Explorer*™ converts your AM/FM car radio into a World Band receiver at the push of a button. Unlike local FM and AM radio stations that fade out after a few miles, enjoy shortwave throughout your entire trip.

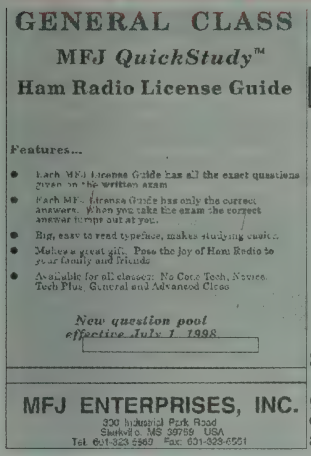
MFJ-306 covers the entire 19, 25, 31, and 49 Meter international shortwave broadcast bands. On these bands, you'll hear stations from all over the world at various times of the day and year -- including Europe, Middle East, Asia, Australia, America and more!

It's easy to install. Just unplug your car radio antenna and plug it into the MFJ-306. Then insert the MFJ-306 cable into your radio antenna jack and connect 12 VDC.

Measures just 5x1½x3½ inches -- small enough to fit anywhere in your vehicle. Push button selects world band or AM/FM radio. Excellent sensitivity and selectivity when used with your automotive receiver. Standard Motorola antenna plug and jack.

MFJ *QuickStudy*™ Ham Radio License Guide

New Question Pools! ***MFJ Publishing guarantees that you'll pass your written exam on your first try . . . if you don't pass we'll refund your money in full* . . . you can't lose!*** *Send copy of receipt, proof of failure to MFJ within 30 days of failing and we'll refund the purchase price of your MFJ *QuickStudy*™. Limit 1 per license class.



MFJ-3211-*Technician*	MFJ-3213-*General*	MFJ-3215-*Extra*

MFJ-3211
MFJ-3213
MFJ-3215
$9.95 each
Technician, General, or Extra Class
Ship Code A

Use MFJ's *QuickStudy*™ License Guide and MFJ guarantees that you'll pass the written exam on your very first try or you get your money back*.

See above.

What is MFJ's *QuickStudy*™ concept? The objective is to pass the exam and get your license with a minimum amount of study time so you can start enjoying the hobby right away.

Each MFJ license guide has all of the exact questions given on the written exam. Each question on the exam has a multiple choice answer. But why take the extra time to study the wrong answers? It'll just add to the confusion and doesn't help you pass the exam. ***MFJ gives you only the correct answers.*** When you take the exam the answer jumps out at you -- no confusion, nothing to clutter the mind. It's an instant correct answer because you only studied the right answer.

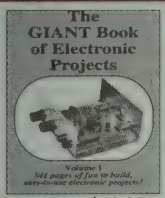
Study the material thoroughly a few times, pass the test and enjoy the friendship of ham radio -- it couldn't be simpler.

MFJ *QuickStudy*™ License Guides are available for all classes Technician, General and Extra Classes. These books only cover the written part of the test, not the five word-per-minute code exam.

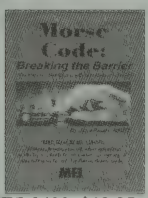
MFJ-3211, *Technician*, MFJ-3213 General Class, MFJ-3215 *Extra Class*, $9.95 each.

New! Antenna book by L.B. Cebik, W4RNL

MFJ-3306, $19.95. ***By L.B. Cebik, W4RNL.*** This practical level antenna book for technicians, amateur radio operators, and students provides direct and clear information on the theory of "antennas from the ground up". The reader will obtain a set of rational expectations based on as much clarity as a non-mathematical treatment of antennas can provide. This book is based upon the kinds of questions the author receives from folks struggling to set up or improve an antenna within the limitations of modern yard sizes and budgets. Scattered among the chapters will be a compendium of typical antenna patterns for common antennas on all of the HF bands. Setting reasonable expectations for antenna performance is the main goal of this book. W4RNL has written each chapter as if he were sitting with the reader, trying to anticipate questions that would be asked at each point along the way. This text is as technically sound as a non-mathematical treatment will permit. Practical antenna work for the amateur seeking good, basic, and simple designs rarely calls for a set of derivations from Maxwell's elegant laws.

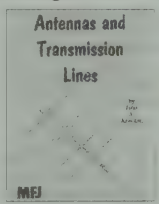


MFJ-3501, $19.95. Over 30 different kit projects, schematics, part placement. Fun ham radio, shortwave, transmitters, etc.



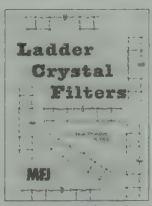
MFJ-3400, $19.95. The Koch Method: the fastest most effective way to code proficiency. Fantastic CW history account. More!

MFJ-3506, $19.95. Legendary textbook from the late Doug DeMaw emphasizes the practical aspect of magnetic core material.



MFJ-3305, $19.95. 320 pages, 37 short concise chapters. Underlying theory, powerful techniques, projects and more!

MFJ-3507, $19.95. Another DeMaw classic! Proven techniques in transmitter and amplifier design. Many, many circuit examples that have been proven to work!



MFJ-3509, $19.95. Everything you need to know about Ladder Crystal Filters. Generous references, computer programs and more! By John Pivnichny, N2DCH.

MFJ-3510, $19.95. A classic QRP Project book from Australian author Drew Diamond. Paddyboard circuit construction, air wound coils, test equipment and more!

MFJ-3502, $12.95. Edward Noll helps you build your own QRP rig while getting acquainted with solid state technology. 52 fun QRP projects in 8 chapters. Classic Noll!

MORE GREAT MFJ SELECTIONS

Packet Radio is Made Easy! MFJ-32, $12.95. By Buck Rogers, K4A- BT. Packet for beginners!

PROH: Packet Radio Operators Handbook MFJ-3036, $12.95. By Buck Rogers, K4ABT.

Oscar Satellite Review MFJ-31, $7.95. By Dave Ingram, K4TWJ.

Golden Classics of Yesteryear MFJ-30,$9.95. By Dave Ingram, K4TWJ. Collins, Heathkit, more!

Wonderful World of Ham Radio MFJ-35, $7.95. All about ham radio. Great start for kids!

Fox Hunt Adventure MFJ-3101, $7.95. Relive a sense of mystery!

Troubleshooting Antennas and Feedlines MFJ-3301, $12.95. By Ralph Tyrrell, W1TF.

Easy-Up Antennas for Radio Listeners & Hams MFJ-38, $16.95. By Ed Noll,W3FQJ.

Shortwave Listener's Guide for Apartment and Condo Dwellers MFJ-36, $9.95. By Ed Noll, W3FQJ. Complete shortwave book. Antennas, receivers, etc.

Ham Radio Communications Circuit Files MFJ-37, $9.95. By Ed Noll, W3FQJ. Many fun weekend projects!

Modern Amateur's Mobile Handbook MFJ-33, $12.95. By Dave Ingram, K4TWJ.

Radio Components Handbook MFJ-3508, $29.95. By Italian author Guido Silva. I2EO.

FET Principles, Experiments and Projects MFJ-3504, $16.95. By Ed Noll, W3FQJ. Classic projects for a few hours or weekend!

73 Dipole & Long Wire Antennas MFJ-3302, $12.95. By Ed Noll, W3FQJ. Classic antenna book covers long wires !

73 Vertical, Beams, Triangle Antennas MFJ-3303, $12.95. By Ed Noll, W3FQJ. Antenna classic covers verticals, beams!

AL-811 . . . 600 WATTS . . . $649!

More hams use Ameritron AL-811 amplifiers than any other amplifier in the world . . . The AL-811 has earned a worldwide reputation for legendary quality, flawless performance, proven reliability and superb customer service . . .

Ameritron's AL-811 linear amplifier gives you plenty of power to bust through QRM!

You get a quiet desktop linear that's so compact it'll slide right into your operating position -- you'll hardly know it's there . . . until QRM sets in. And you can conveniently plug it into your nearest 120 VAC outlet -- no special wiring needed.

You get three tough 811A transmitting tubes, extra heavy duty power supply, all HF band coverage, pressurized ventilation, tuned input, dual illuminated meters, adjustable ALC and much more for an incredible $649!

The First 600 Watts makes the difference

The AL-811 gives you 600 Watts PEP output -- that's nearly 2 full S-units over your barefoot rig.

That could mean the difference between hearing, "You're Q-5 armchair copy" and "Sorry, can't copy you, too much QRM."

Now you won't have to stand aside while the "big guns" steal your DX. You'll be able to log some of those stations first.

All Band, All mode Coverage

AL-811 covers all HF bands. There's no compromise on WARC and most MARS bands -- you get a 100% rated output.

Operate AL-811 on all modes. Get 600 Watts output PEP SSB and 500 Watts output CW. You even get 400 Watts on continuous carrier modes like RTTY, SSTV, FM and AM.

Low cost 811A tube resists failure --

First, they're constructed with widely spaced elements that minimize the chance of elements touching and causing a short -- even if the plate gets hot enough to melt.

Second, they use a directly heated thoriated tungsten filament cathode that prevents the electron emitting layer from instantly stripping off -- even if mistuning causes a sudden, severe current overload.

The Ameritron AL-811 is excellent for the newcomer because it's tough enough to withstand momentary mistuning. And the tubes are so inexpensive that you can replace one for mere pocket change.

The Ameritron advantage: Extra heavy duty power supply gives you peak performance year after year

The heart of the AL-811 power supply is its heavy duty power transformer with a *high silicon steel* core weighing a hefty 17 pounds.

A full wave bridge using 52.5 ufd of total capacitance (four 210 ufd, 470 volt capacitors) produces 1500 Volts under full load and 1700 Volts no load. That's excellent high voltage regulation!

Full height computer grade filter capacitors with screw terminals are used -- not short stubby, light duty soldered-in "high technology" capacitors that can't dissipate the heat generated by high current.

Rectifier diodes are rated for a massive surge current of 200 amps-- won't blow even if you accidentally short the high voltage supply.

Wire wound, 7 Watt, 50 K Ohm equalizing resistors safely protect each filter capacitor -- *not* 2 Watt, 100 K Ohm carbon composition resistors that can open and cause filter capacitors to explode or fail.

The Ameritron AL-811 power supply is built tough so you get peak performance year after year.

Tuned input provides excellent load for any rig

A Pi-Network tuned input provides a 50 Ohm load for your rig. Even fussy solid state rigs can deliver their full drive to the AL-811.

Low loss slug tuned coils -- tunable from the rear panel -- let you optimize performance. High quality low drift silver mica capacitors maintain proper tuning.

Output tank: Optimum Q on each band

The low loss pi-network output tank of the AL-811 has been carefully designed for optimum Q on each band and built with top quality RF components.

The result is peak performance over each band, wide impedance matching range and exceptionally smooth tuning with efficiencies close to 70%. Even 3:1 SWR load won't damage tubes or tank components.

A ball bearing vernier reduction drive makes plate tuning safe, precise and easy.

Quiet pressurized ventilation keeps your tubes safely cooled

A quiet blower pressurizes the cabinet with a large volume of air flow. It keeps the 811A tube temperature *well below* the tube manufacturer's rating -- even with a key down carrier at 400 Watts output -- without the *overwhelming* noise of oversized fans.

Two illuminated meters

Two illuminated meters give you a clear picture of your AL-811 operating conditions so you can tell right away if something is wrong.

The Grid Current meter *continuously* checks for improper loading. The other meter switches between high voltage and plate current to warn of abnormal conditions.

Ameritron exclusive Adapt-A-Volt™ power transformer

Too high line voltage stresses components and causes them to wear out and fail. Too low line voltage cause s a "soft tube" effect -- low output and signal distortion.

Ameritron's exclusive *Adapt-A-Volt™* power transformer has a special buck-boost winding that lets you compensate for stressful high line voltage and performance robbing low line voltage.

Your components last longer and gives you peak performance -- regardless of your line voltage.

Plus much, much more . . .

An Operate/Standby switch lets you run barefoot, but you can instantly switch to full power if needed.

A transmit LED tells you when your rig is keying your AL-811.

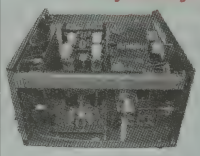
A 12 VDC keying relay makes it compatible with all solid state and tube rigs. A back-pulse cancelling diode protects the rig keying circuit.

Shielded RF compartment. One year limited warranty. Compact 16Dx13¾Wx8H inches. 30 pounds. UPS shippable. Shipped with transformer installed and wired for 120 VAC. Draws 8 amps at 120 VAC. Export model AL-811X wired for 240 VAC. Includes 10 and 12 meters.

800 WATTS . . . $795!

Ameritron gives you four 811A tubes, 800 Watts for the same price as the competitor's 3 tube 600 Watt unit . . .

Why settle for less power and pay more money?



Only the Ameritron AL-811H gives you four *fully neutralized* 811A transmitting tubes. You get absolute stability and superb performance on higher bands that can't be matched by un-neutralized tubes.

Ameritron mounts the 811A tubes *vertically* -- not horizontally -- to prevent hot tube elements from sagging and shorting out. *Potentially damaging horizontal tube mounting* requires special 811A tubes to retard sagging and shorting.

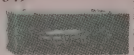
Quiet, powerful computer grade blower draws in plenty of cool air. it pressurizes the cabinet and efficiently cools your 811A tubes. Our air flow is so quiet, you'll hardly know it's there -- unlike noisy, oversized blowers.

Efficient, full size size heavy duty tank coils, full height computer grade capacitors, heavy duty silicon power transformer, slug tuned input coils, operate/standby switch, transmit LED, ALC, dual meters, QSK compatibility with Ameritron's QSK-5 plus much, much more!

ARB-702 (I,K,Y) amp-to-radio interface . . . $39.95

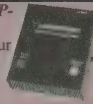
Protect your costly radio from damage by keying line transients, steady state current and excessive voltages. Makes interfacing any amplifier with any radio a breeze. Order I for Icom and compatibles, Y for Yaesu and compatibles and K for Kenwood and compatibles.

QSK-5 Pin Diode Transmit/Receive Switch . . . $349



Ameritron's QSK-5 is the world's most advanced Transmit/Receive Switch. Gives high power QSK operation from your linear amplifier. Self-contained, connects externally to most HF amps. Handles 2.5 kW PEP, 2 kW CW. Six times faster than vacuum relay.

AMP Tuning Pulser ATP-100, $49.95 Pulse tuning lets you safely tune up your amplifier for full power output and best linearity. Keeps average power to low safe level to prevent overheating, tube damage, power supply stress and premature component failure. **ATP-102, $59.95**, similar but has variable pulser and delay.



ICP-120/240 Inrush Current Protector . . . $79

Stops power-up inrush current and absorbs momentary high voltage spikes to your amp. This start up sequence is easier on your tube & power supply components. Avoids replacing expensive tubes and components. 120 or 240 VAC models.

AL-80B . . . 1 kW PEP output!

Ameritron doubles average SSB power!

AL-80B kilowatt output desktop linear can double your average SSB power out with high-level RF processing -- runs cooler because its classic 3-500 tube completely turns off between words!

AL-80B
$1299
Suggested Retail

Ameritron's AL-80B kilowatt *output* desktop linear can double your average SSB power output with high-level RF processing using Ameritron's exclusive *Dynamic ALC*™.

You get cooler operation because the AL-80B's exclusive *Instantaneous RF Bias*™ completely turns off the classic 3-500 tube between words. It saves hundreds of watts wasted as heat.

You get a full kilowatt PEP output from a whisper quiet desktop linear. It's a compact 8½Hx14Dx15½ inches and plugs into your nearest 120 VAC outlet. Covers all bands 160-15 Meters, including WARC and MARS (10/12 Meters mod with license).

You get 850 Watts *output* on CW, 500 Watts *output* on RTTY, an extra heavy duty power supply, genuine 3-500 tube, nearly 70% efficiency, tuned input, Pi/Pi-L output, inrush current protection, multi-voltage transformer, dual Cross-Needle meters, QSK compatability, two-year warranty, made in USA, plus much more!

Dynamic ALC™ doubles average SSB power

The AL-80Bs exclusive *Dynamic ALC*™ gives you high-level low-distortion RF processing. When activated, it can more than double your average SSB power and produce up to 6 dB improvement in intelligibility. Maximizes your talk power without distortion/splatter.

A convenient front panel control lets you adjust output power level.

Instantaneous RF Bias™ eliminates heat

The AL-80Bs exclusive *Instantaneous RF Bias*™ completely turns off the classic 3-500 tube (except filaments) between words and dots and dashes. It eliminates hundreds of watts wasted as heat to gives cooler operation, longer component life.

Gutsy Heavy Duty Power Supply

The guts of the AL-80B is its *heavy duty* power supply. A 26 pound transformer using a high silicone steel core, computer grade capacitors, heavy duty bleeders and ten 3 amp, 1000 Volt power rectifiers give you a stiff 2700 volts fully loaded. Many amplifiers using two 3-500s use such small power supplies they don't deliver much more power output than the AL-80B.

70% Efficiency

The AL-80B is built on a rugged steel chassis. It has a separate RF compartment that's fully shielded to keep RF from leaking out. This keeps RFI and TVI to a minimum.

Superb RF design and layout, Hi-Q tank circuit and commercially rated RF power components give you nearly 70% plate efficiency over the entire operating range. Your power goes into your antenna instead of heating up your amplifier.

A whisper quiet internal fan draws in cool air over power supply components and pressurizes the classic 3-500 tube compartment to remove heat for longest life.

Tuned input lets your rig deliver full output

50 Ohm broadband Pi-Network *tuned input* is used. Even fussy solid state transmitters will deliver full power!

Pi/Pi-L Output Network

A carefully designed Pi/Pi-L output network using the optimum Q for each band gives exceptionally smooth tuning, extremely wide matching range, full band coverage and peak performance at all power levels.

Ball bearing vernier reduction drives with logging scales on both the plate and load controls make tuning precise and easy. Rapidly retune to your favorite frequency.

Step-Start Inrush Protection™

***Step-Start** Inrush Protection*™ stops damaging inrush current with a start up sequence that's easy on your tube and power supply components.

Multi-Voltage Power Transformer

Excessive line voltage stresses components and causes wear out. Low line voltage causes a "soft tube" effect -- low output/signal distortion.

Our exclusive *Multi-Voltage Power Transformer*™ lets you optimize for different line voltage. Select from 14 different primary voltages from 90-140 VAC & 205-250 VAC.

The *high voltage secondary* can be wired to reduce plate voltage for efficient operation below 400 Watts for use outside the USA.

Dual Illuminated Cross-Needle Meters

Ameritron's dual illuminated cross-needle meters give you *four separate meters* to monitor your operating conditions -- you can tell right away if something is wrong.

Grid and plate current and forward PEP output power are *continuously* monitored to show improper loading/abnormal conditions.

The fourth meter can be switched to monitor your classic 3-500 tube DC plate voltage, reflected PEP power and the SWR of your antenna, ALC voltage to your rig and the grid current that starts ALC action -- get a clear picture of your AL-80B.

QSK Compatible

The fast open frame T/R (transmit/receive) relay in the AL-80B switches nearly as fast as some vacuum relay QSK T/R switches.

For *lightning fast* QSK operation use the optional external electronic PIN diode QSK-5 T/R switch or the internal QSK-5PC.

Plus much, much more!

Operate/Standby switch lets you run barefoot, but can instantly switch to full power if you need it.

Has transmit LED; 12 VDC, 200 mA accessory jack; 12 VDC keying relay for solid state and tube rigs; tough, nearly indestructible Lexan over-aluminum front panel. Two year limited warranty.

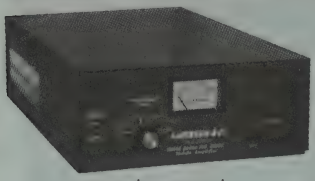
Made in the USA. Ameritron is the proven leader in high power amplifiers.

Call your dealer for your best price!

http://www.ameritron.com

No Tune Solid State Amplifiers

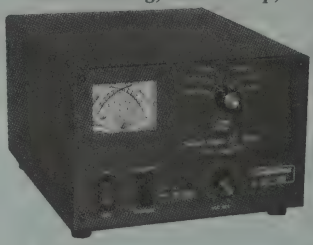
Ideal mobile amplifier -- uses 13.8 VDC mobile electrical system, very compact, extremely quiet, 500 Watts output, continuous 1.5-22 MHz coverage, instant bandswitching, no tuning, no warm up, SWR protected.



ALS-500M
$799
Suggested Retail

ALS-500M, $799. Ideal mobile amplifier uses 13.8 VDC at 75 amps mobile electrical system, very compact 3½x9x15 inches fits easily in your auto, extremely quiet, 500 Watts out, 1.5-22 MHz coverage, instant bandswitching, no tuning, no warm up, no tubes. SWR Protection. Uses four rugged 2SC2879 high power linear RF power transistors. Load fault protection disables and bypasses amplifier if antenna has excessively high reflected power or if bandswitch is set lower than exciter frequency -- virtually eliminates damage because of operating error; has Load fault LED indicator.

No tuning, no fuss, no worries -- just turn on and operate . . . incredibly low $1299 includes AC power supply, 600 Watts output, continuous 1.5-22 MHz coverage, instant bandswitching, no warm up, no tubes to baby and more!



ALS-600
$1299
Suggested Retail

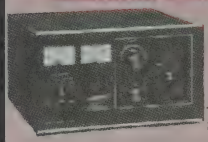
ALS-600, $1299. No tuning, no fuss, no worries -- just turn it on and operate. Includes AC power supply, 600 Watts output, continuous 1.5-22 MHz coverage, instant band switching, fully SWR protected, extremely quiet, very compact. Both separately measure 6x9½x12 inches .

SWR Protection prevents amp damage if you switch to the wrong band, use wrong antenna or have high SWR. Over Power protection takes over if power exceeds safe level, output power is automatically reduced to prevent amplifier damage.

AMERITRON offers the best selection of FULL legal limit amplifiers

AMERITRON's legal limit amplifiers use a super heavy duty Hypersil[R] power transformer capable of 2500 Watts!

Ameritron's most powerful

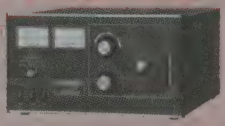


AL-1500
$2995
Suggested Retail

Ameritron's super powerful amplifier uses the herculean *Eimac*[R] 8877 ceramic tube. It's so powerful that 65 watts drive gives you the full legal output -- and it's just loafing because the power supply is capable of 2500 Watts PEP. It also features time delay starting to protect the tube and over-current shut-off to remove the drive if mistuned. Commercial grade diecast ball bearing blower provides quiet operation at full rated airflow to maximize tube life.

Ameritron's Toughest Amp

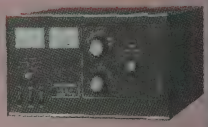
AL-1200
$2545
Suggested Retail



Ham radio's toughest tube -- the *Eimac*[R] 3cx1200A7 is in *ham radio's toughest amplifier!* It has a 50 Watt control grid dissipation. It also has the same super heavy duty power supply that's in our AL-1500 amplifier that loafs at full power. A 3CX1200A7 has the lowest quantity history of field replacement of any modern transmitting tube that we use. It has the ruggedness and power handling of ceramic tubes combined with the long-life of thoriated tungsten filaments.

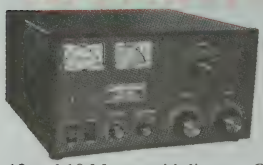
Ameritron's Classic Amp

AL-82
$2445
Suggested Retail



This *classic linear* gives you full legal output using a pair of 3-500s. Examine the features and component ratings of the AL-82 and compare it to any competing amplifier using two 3-500ZGs. Most competing linears using 3-500s can't give you 1500 Watts because their lightweight power supplies can't use these tubes to their full potential. Our AL-82 amplifier has the same in the AL-1500 and AL-1200 -- *powerful stuff!*

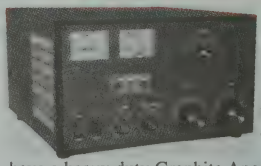
AL-800H . . . 1500 Watts!



AL-800
$1775
Single Tube
Suggested Retail
AL-800H
$2595
Two Tubes

Output Power: 1250 Watts PEP, single 3CX800A7. 1500 W plus, two 3CX800A7s. **All Band Operation:** 160-15 Meters including WARC bands. User modifiable for 12 and 10 Meters with license. **Genuine *Eimac*™ tube(s):** Model AL-800 has single Eimac 3CX800A7; Model AL-800H has two Eimac 3CX800A7s. **Tuned Input Circuit:** Adjustable slug-tuned input circuit. **Output network:** Pi/Pi-L gives you smooth tuning and wide matching range. **Tube Protection:** Grid current limiting circuit protects your tubes. **ALC Control:** Front panel adjustable, true ALC control. **Vernier Reduction Drives:** Tuning and loading reduction drives make adjustments smooth and easy. **Hefty power supply:** 32 lb. grain orientated, silicone steel core transformer.

AL-572 . . . 1300 Watts!



AL-572
$1395
Suggested Retail

You get 1300 Watts PEP SSB nominal power out on amateur bands 160-15 Meters. **Four** rugged 572B tubes give you near legal limit power and instant 3 second warm-up time. **These** four fully neutralized tubes have a heavy duty Graphite Anode, low loss white ceramic base, superior Titanium Getter and legendary quality and ruggedness.

Ameritron's exclusive *ParasiticKiller*™ effectively suppresses all parasitic oscillations.

This whisper quiet desktop linear plugs into your nearest 120 VAC outlet -- no special wiring needed.

Typically get 1300 Watts PEP SSB, 1000 Watts CW continuous, 1000 Watts 1/2 hour PEP two-tone test on all amateur bands from 160-15 Meters (WARC bands and 10 Meters at reduced performance.

AMERITRON True Legal Limit™ Tuner

Easily handles 1500 Watts continuous carrier even on 160 Meters . . . High-current edge-wound silver plated Roller Inductor . . . Two 500 pf high capacitance tuning capacitors with 6:1 vernier reduction drives . . . 3 core choke balun . . . Six position antenna switch . . . True peak reading Cross-Needle SWR/Wattmeter . . .

ATR-30

$599

Suggested Retail

AMERITRON's ATR-30 *True Legal Limit*™ roller inductor antenna tuner is ham radio's toughest! It'll handle 1500 Watts *continuous carrier output* on *all* modes and *all* HF bands into most antennas -- even on 160 Meters where most antenna tuners fail.

It's perfect for Ameritron's most powerful amplifiers where the ATR-30 just loafs.

All band coverage lets you operate 1.8-30 MHz including all MARS and WARC bands.

***Super High Current* Roller Inductor**

You'll see Ameritron's new *super high current* air core roller inductor. It's *edge wound* from a thick solid copper strip and silver plated. This produces a large surface area and a massive conductor. It can carry huge circulating RF currents and withstand tremendous heat that'll melt or burn ordinary roller inductors.

A gear driven turns counter and crank knob gives you precise inductance control.

Two 500 pf Tuning Capacitors

Two 500 pf -- *the highest of any antenna tuner* -- variable transmitting capacitors give you no-arc wide range impedance matching for true high power performance.

6:1 vernier reduction drives makes capacitor tuning smooth and easy.

Super Balun, 6 position Antenna Switch

Super heavy duty three core choke balun lets you match virtually any balanced feedline antenna without core saturation.

A 6 position antenna switch lets you select your desired operating antenna.

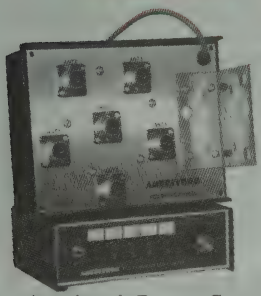
Read *true* Peak Power

Ameritron's active electronic *true* peak reading meter accurately reads forward and reflected power and SWR *simultaneously* on a lighted Cross-Needle meter.

Roomy Cabinet maintains High-Q

Roomy extra-strong .080 inch thick aluminum cabinet gives highest efficiency and lowest loss. 13¼Wx5⅝Hx17½D inches. Has Ameritron's superb one year limited warranty with legendary customer service.

RCS-8V *HF to VHF/UHF* Remote Coax Switch



RCS-8V

$149

Suggested Retail

Ameritron's Remote Coax Switch lets you remotely switch up to five separate antennas -- so you can replace five coax feedlines with a single coax.

Eliminate a tangle of troublesome coax and have a simple and neat installation -- with just a single coax feedline.

The RCS-8V consists of two units -- the weatherproof switching box that mounts on your tower or mast and the control unit that's placed at your operating station.

VSWR is less than 1.2 from DC to 250 MHz and less than 0.1 dB loss at 150 MHz -- if you operate HF to VHF/UHF, then this RCS-8V is for you.

It handles 5 kW below 30 MHz and 1 kW at 150 MHz. You can ground unused positions or leave them open.

The indoor control unit is all metal to prevent RFI and TVI. It also has LEDs to indicate the antenna you've selected.

A Lexan scratch proof front panel has a markable surface for labeling your antennas.

The RCS-8V operates from a 120 VAC power source or RCS-8VX for 220/240 VAC. Uses any 6 conductor control line (not supplied) and allows safe operation with 14 volts control voltage.

RCS-8VN, $159. Same as RCS-8V but with N-type connectors in place of SO-239 coax connectors.

SPECIFICATIONS:

Number of antenna positions: 5
Loss at 150 MHz: less than 1 dB.
VSWR: under 1.2 - 1 from DC to 250 MHz. Impedance: 50 Ohms. **Connectors:** SO-239 for RCS-8V; "N" for RCS-8VN. **Control Box:** 6Dx6⅛W x2¼H inches. **Switch Box:** 5⅞Dx7Wx3H inches.
Power Capability: 5 kW below 30 MHz, 1 kW at 150 MHz. **Power requirements:** 120 VAC, 50/60 Hz at five watts.

AMERITRON RCS-4 HF Remote Coax Switch

RCS-4

$139

Suggested Retail

The Ameritron RCS-4 is a remote controlled coax switch that selects one of four outputs by supplying all control voltages through the coax. Elimination of control cables gives you a fast, neat and inexpensive in-stallation -- only one coax line for four antennas.

You get two units -- the switching box (5⅞Dx7Wx3H in.) that can be tower, mast or wall mounted and the control console (6⅛Dx5¼Wx 3⅞H in.) that is located at your operating station.

The attractive indoor console has bright LED antenna selector indicators. A steel enclosure provides 100% shielding to prevent RFI and TVI. Switching time is 50 milliseconds. SO-239 connectors provide reliable connections.

The weatherproof switching box uses three heavy duty 10 ampere contact relays on a rugged G-10 fiberglass circuit board.

Quality components are used throughout the entire unit to ensure maximum life for the sometimes *difficult-to-reach* switch box.

The RCS-4 operates from 120 VAC or RCS-4X for 220/240 VAC power sources and allows safe operationwith 14 Volts control voltage.

Frequencies from 1.8 through 30 MHz are covered by this excellent station accessory. Handles 1500 Watts continuously.

Specifications: 4 antenna positions; Loss at 30 MHz is less than 0.5 dB; VSWR is 1.1:1 from 1.8-30 MHz;

Impedance: 50 Ohms; **Power:** 1500 Watts average continuous.

ATR-20 Antenna Tuner . . . $459

Handles 1500 Watts RF output. Slightly less on 160 Meters. 13½Wx5½Hx13¼D". Bandswitched T-network, peak reading SWR/Wattmeter, covers 1.8-30 MHz, 6 position antenna switch, balun. Great for AL-80B.

ADL-1500 Dummy Load with oil . . . $59.95

Oil cooled 50 Ohm dummy load handles 1500 Watts for 5 minutes. SWR under 1.2 up to 30 MHz. Low SWR to 400 MHz. Has high quality industrial grade transformer oil (no PCB) and heavy duty 50 Ohm resistor.

ADL-2500 Fan cooled 2500W dry dummy load ...$199.95

Whisper quiet fan. Handles any legal limit amplifier -- 2500 Watts average power for 1 minute on, ten off. 300 Watts continuous. SWR below 1.25 to 30 MHz and SWR below 1.4 to 60 MHz.

AWM-30 Precision SWR Wattmeter . . . $149

Ameritron's precision SWR/Wattmeter is perfect for making accurate linear amplifier power measurements. Reads true peak/avg power on lighted cross-needle meter. 3000/300 Watt ranges, remote sensor.

hy-gain ROTATORS

. . . the first choice of hams around the world!

THE HAM-IV

HAM-IV is the **$529.95** Ship Code E most popular rotator in the world! It is designed for medium communications arrays of up to 15 square feet wind load area. New low temperature grease permits normal operation down to -30 degrees F. New alloy ring gear gives extra strength up to 100,000 PSI for maximum readability. New indicator potentiometer, new ferrite beads reduce RF susceptibility, new cinch plug connector plus 8-pin plug at control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center of rotation scale on meter. low voltage control, maximum mast size of 2 1/16".

HAM IV Rotator Specifications	
WindLoad capacity(inside tower)	15 square feet
Wind Load (w/ mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Bearing Assembly	**Dual race/96 ball bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 ft/lbs.**

THE TAILTWISTER SERIES II

T-2X **$619.95** Ship Code E

T-2XD **$979.95** Ship Code E

is designed for medium communications antenna arrays of up to 20 square feet wind load area. Available with DCU-1 Pathfinder digital control box (T2XD) or standard analog control box (T2X). Low temperature grease, alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, new weatherproof AMP connectors plus 8-pin plug at control box, triple bearing race with 138 ball bearings for large load bearing strength, electric locking steel wedge brake, north or south center of rotation scale on meter, low voltage control, max mast of 2 1/16".

TAILTWISTER Rotator Specifications	
WindLoad capacity(inside tower)	20 square feet
Wind Load (w/ mast adapter)	**10 square feet**
Turning Power (in lbs.)	1000
Brake Power (in lbs.)	**9000**
Brake Construction	Electric Wedge
Bearing Assembly	**Triple race/138 ball brngs**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight (lbs.)	28
Effective Moment (in tower)	**3400 ft/lbs.**

THE HAM-V

HAM-V is the **$899.95** Ship Code E rotator for the new milennium.

It is designed for medium communications antenna arrays of up to 15 square feet wind load area.

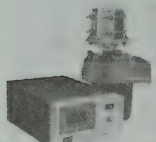
Includes the innovative DCU-1 Pathfinder control unit. A new alloy ring gear with 100,000 PSI tensile strength and new indicator potentiometer have been added for improved reliability.

No more terminal strips! New Cinch connector plus 8-pin plug at control box - no screwdriver required.

New powder coated finish. Maximum mast size of 2 1/16 inches.

HAM V Rotator Specifications	
WindLoad capacity(inside tower)	15 square feet
Wind Load (w/ mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Bearing Assembly	**Dual race/96 ball bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 foot/lbs.**

THE HDR-300A



HDR-300A is **$1229.95** Ship Code E for King-sized antenna arrays up to 25 sq.ft. wind load area. Control cable connector, new hardened stainless steel output shaft, new North or South centered calibration, new ferrite beads on potentiometer wires to reduce RF susceptibility, new longer output shaft keyway for added reliability. Heavy-duty self-centering steel mast clamp and hardware. Digital display accurate to 1 degree. Machined steel output.

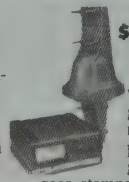
HDR-300A Rotator Specifications	
WindLoad capacity(inside tower)	25 square feet
Wind Load (w/ mast adapter)	**-- square feet**
Turning Power (in lbs.)	5000
Brake Power (in lbs.)	**7500**
Brake Construction	Solenoid operated locking
Bearing Assembly	**bronze sleeve w/rollers**
Mounting Hardware	stainless steel bolts
Control Cable Conductors	**7**
Shipping Weight (lbs.)	55
Effective Moment (in tower)	**5000 ft/lbs.**

THE AR-40

AR-40 **$269.95** Ship Code E is for large FM-TV and compact communication antenna arrays up to 3.0 square feet wind load area. Dual 12 ball bearing race is exclusive in its class. Automatic position sensor never needs resetting. Fully automatic control - just dial and touch for any desired location. Solid state, low voltage control, safe and silent operation. Maximum mast size of 2 1/16 inches. Includes MSLD light duty lower mast support.

AR-40 Rotator Specifications	
WindLoad capacity(inside tower)	3.0 square feet
Wind Load (w/ mast adapter)	**1.5 square feet**
Turning Power (in lbs.)	350
Brake Power (in lbs.)	**450**
Brake Construction	Disc Brake
Bearing Assembly	**Dual race/12 ball bearings**
Mounting Hardware	Plated clamps,/steel bolts
Control Cable Conductors	**5**
Shipping Weight (lbs.)	14
Effective Moment (in tower)	**300 ft/lbs.**

THE CD-45II



CD-45II **$369.95** Ship Code E handles 8.5 sq. feet mounted inside a tower, or 5 sq. ft. with mast adapter. Low temperature grease good to -30 F degrees. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North center scale, lighted directional indicator, 8-pin plug/socket on control unit, snap-action control switches, low voltage control, safe operation, takes masts to 2 1/16". MSLD light duty lower mast support.

CD-45II Rotator Specifications	
WindLoad capacity(inside tower)	8.5 square feet
Wind Load (w/ mast adapter)	**5.0 square feet**
Turning Power (in lbs.)	600
Brake Power (in lbs.)	**800**
Brake Construction	Disc Brake
Bearing Assembly	**Dual race/48 ball bearings**
Mounting Hardware	plate clamps/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight (lbs.)	22
Effective Moment (in tower)	**1200 ft/lbs.**

THE DCU-1 PATHFINDER

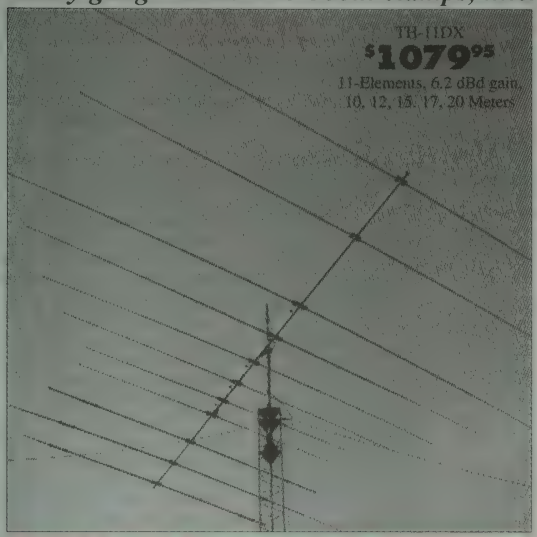
DCU-1 **$619.95** Ship Code B

This innovative digital rotator control unit is compatible with T2X, HAM IV and HAM V Rotators. Shipping weight: 8 lbs.

Automatic Operation of brake and rotor
Computer control with RS232 passthrough
Compatible with many logging and contest programs
6 presets for your favorite beam headings
1 degree heading accuracy
Automatic 8-second brake delay
360 degree choice for center of rotation

hy-gain HF BEAMS...

. . . are stronger, lighter, have less wind surface and last years longer. Why? Hy-Gain uses durable tooled components -- massive boom-to-mast bracket, heavy gauge element-to-boom clamps, thick-wall swaged tubing -- virtually no failures!



TH-11DX, $1079.95. 11-element, 6.2 dBd Gain, 10,12,15,17,20M

The choice of top DXers. **With** 11-elements, 6.2 dBd gain and 5-bands, the super rugged TH-11DX is *the "Big Daddy" of all HF beams!*

Handles 2000 Watts continuous, 4000 Watts PEP.

Every part is selected for durability and ruggedness for years of trouble-free service.

Features a low loss log-periodic driven array on all bands with monoband reflectors, BN-4000 high power balun, corrosion resistant wire boom support, hot dipped galvanized and stainless steel parts.

Stainless steel hardware and clamps are used on all electrical connections.

TH-7DX, $819.95. 7-element, 6.57 dBd Gain, 10,15,20 Meters

7-Elements gives you an incredible avg *6.57 dBd gain -- the highest* of any Hy-Gain tri-bander!

Dual driven for broadband operation without compromising gain. SWR less than 2:1 on *all* bands.

Uniquely combining monoband and trapped parasitic elements give you an excellent 27 dB F/B.

Includes *Hy-Gain's* diecast aluminum, rugged boom-to-mast clamp, heavy gauge element-to-boom brackets, BN-86 balun. For high power, upgrade to BN-4000.

TH-5MK2, $699.95. 5-element, 6.1 dBd Gain, 10,15,20 Meters

The broadband *five element* TH5-MK2 gives you an outstanding 6.1 dBd average gain.

Separate air dielectric *Hy-Q* traps let you adjust for maximum F/B ratio on each band.

Also standard is *Hy-Gain's* exclusive *BetaMATCH*™, stainless steel hardware and compression clamps and BN-86 balun.

TH-3MK4, $439.95. 3-element, 5.9 dBd Gain, 10,15,20 Meters

The super popular TH-3MK4 gives you the *most gain for your money* in a full-power, full-size durable Hy-Gain tri-bander!

You get an impressive 5.9 dBd average gain and a whopping 25 dB average front-to-back ratio. Handles a full 1500 Watts PEP. 95 MPH wind survival.

Fits on average size lot with room to spare -- turning radius is just 15.3 feet. Four piece boom is ideal for DXpeditions. Rotates with CD-45II or HAM-IV rotator.

Features *Hy-Gain BetaMatch*™ for DC ground, full power *Hy-Q*™ traps, rugged boom-to-mast bracket and mounts on standard 2"O.D. mast. Stainless steel hardware. BN-86 balun recommended.

TH-2MK3, $339.95. 2-element, 3.4 dBd Gain, 10,15,20 Meters

The 2-element TH-2MK3 is Hy-Gain's *most economical* full power (1.5kW PEP) full size tri-bander.

For just $339.95 you can *double* your effective radiated power and hear *15-20 dB* (=F/B) better!

Ruggedly constructed, top-performing, compact 6 foot boom, tight 14.3 foot turning radius. Installs almost anywhere. Rotate with CD-45II or HAM-IV. BN-86 balun recommened.

EXP-14, $549.95. 4-element, 5.9 dBd Gain, 10,15,20 Meters

Revolutionary 4-element compact tri-bander *lets you add 40 or 30 Meters!* Has 14 foot boom and tight 17.25 feet turning radius. Fits on roof tri-pod, mast or medium duty tower.

Hy-Gain's *patented* broadbanding *Para Sleeve* gives you less than 2:1 VSWR. 1.5kW PEP.

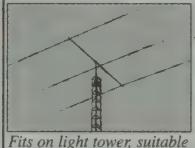
BetaMATCH™ provides DC ground to eliminate static. Includes BN-86 balun. Easily assembled.

***Truly** competitive against giant tri-banders at half the cost!*

QK-710, $169.95. 30/40 Meter option kit for EXP-14.

Compact 3-element 10, 15, 20 Meter Tri-Bander

For limited space . . . Installs anywhere . . . 14.75 ft turning radius . . . weighs 21 lbs . . . Rotate with CD-45II, HAM-IV



Fits on light tower, suitable guyed TV pole, roof tri-pod

TH-3JRS, $329.95. Hy-Gain's *most popular* 3-element 10, 15, 20 Meter tri-bander fits on most lots! Same top performance as the full power TH3MK4 in a compact 600 watt PEP design.

Excellent 5.8 dBd gain and 25 dB F/B let *you* compete with the "big guns".

Tooled manufacturing gives you *Hy-Gain* durability with 80 MPH wind survival.

Model No.	No. of elements	avg Gain dBd	avg F/B dB	MaxPwr watts PEP	Bands Covered	Wind sq.ft. area	Wind (mph) Survival	Boom (feet)	Longest Elem. (ft)	Turning radius(ft)	Weight (lbs.)	Mast dia O.D.(in.)	Recom. Rotator	Retail Price
TH-11DX	11	6.2	22	4000	10,12,15,17,20	12.5	100	24	37	22	88	1.9-2.5	T2X	$1079.95
TH-7DX	**7**	**6.57**	**21**	**1500**	**10, 15, 20**	**9.4**	**100**	**24**	**31**	**20**	**75**	**1.5-2.5**	**HAM-IV**	**$819.95**
TH-5MK2	5	6.1	20	1500	10, 15, 20	7.4	100	19	31.5	18.42	57	1.5-2.5	HAM-IV	$699.95
TH-3MK4	**3**	**5.8**	**25**	**1500**	**10, 15, 20**	**4.6**	**95**	**14**	**27.42**	**15.33**	**35**	**1.9-2.5**	**CD-45II**	**$439.95**
TH-3JRS	3	5.8	25	600	10, 15, 20	3.35	80	12	27.25	14.75	21	1.25-2.0	CD-45II	$329.95
TH-2MK3	**2**	**3.4**	**15-20**	**1500**	**10, 15, 20**	**3.25**	**80**	**6**	**27.3**	**14.25**	**20**	**1.9-2.5**	**CD-45II**	**$339.95**
EXP-14	4	5.9	25	1500	10,15,20 (optional 30/40)	7.5	100	14	31.5	17.25	45	1.9-2.5	HAM IV	$549.95

Tooled Manufacturing . . . Highest Quality Materials

1. **Hy-Gain's** famous super strong *tooled* die cast *Boom-to-Mast Clamp*
2. ***Tooled** Boom-to-Element Clamp*
3. **Thick-wall** *swaged* aluminum tubing

***Tooled** manufacturing* is the difference between Hy-Gain antennas and the others -- they just don't have it (it's expensive!). **Die-cast** aluminum boom-to-mast bracket and element-to-boom compression clamps are made with specially *tooled* machinery.

Hy-Gain antennas feature *tooled* swaged tubing that is easily and securedly clamped in place. All tubing is deburred and cleaned for smooth and easy assembly. **Durable** precision injection molded parts.

Hy-Gain antennas are stronger, lighter, have less wind surface area, better wind survival, need no adjustments, look professional and last years longer.

Free Hy-Gain Catalog
and Nearest Dealer . . . 800-973-6572
Call your dealer for your best price!

hy-gain
Antennas, Rotators & Towers
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Toll-free Customer Sales Hotline: 800-973-6572
• TECH: 662-323-9538 **• FAX:** 662-323-6551
http://www.hy-gain.com

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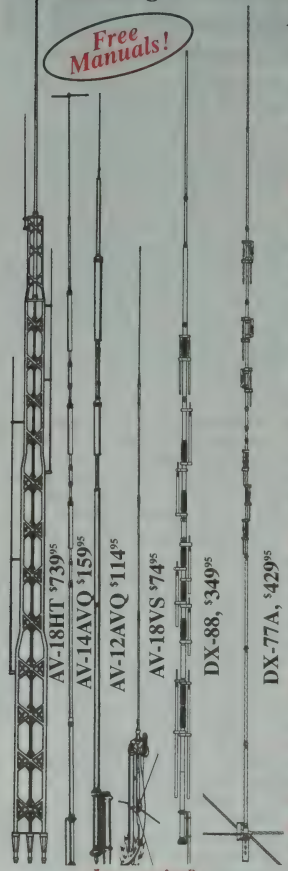
hy-gain HF VERTICALS...

Self-supporting -- no guys required . . . Remarkable DX performance -- low angle radiation, omnidirectional . . . Handles 1500 Watts . . . Low SWR . . . Automatic band switching . . . Aircraft quality aluminum tubing . . . Stainless steel hardware . . . Recessed SO-239 connector . . . Two year limited Warranty . . .

Free Manuals!



hy-gain® Classics

All hy-gain multi-band vertical antennas are entirely self supporting -- no guys required.

They offer remarkable DX performance with their extremely low angle of radiation and omnidirectional pattern.

All handle 1500 Watts PEP SSB, have low SWR, automatic bandswitching (except AV-18VS) and include a 12-inch heavy duty mast support bracket (except AV-18HT).

Heavy duty, slotted, tapered swaged, aircraft quality aluminum tubing with full circumference compression clamps is used for radiators. Includes all stainless steel hardware. Recessed SO-239 prevents moisture damage. Hy-gain verticals go up easily with just hand tools and their cost is surprisingly low. Two year limited warranty.

AV-18HT, $739.95. (10, 15, 20, 40, 80 Meters, 160 Meters optional). 53 ft., 114 lbs. **Standing** 53 feet tall, the famous *Hy-Gain HyTower* is the world's best performing vertical! The AV-18HT features automatic band selection achieved through a unique stub-decoupling system which effectively isolates various sections of the antenna so that an electrical 1/4 wavelength (or odd multiple of a 1/4 wavelength) exists on all bands.

Approximately 250 kHz bandwidth at 2:1 VSWR on 80 Meters. With the addition of a base loading coil (LC-160Q, $99.95), it also provides exceptional 160 Meter performance.

The 24 foot tower is all rugged, hot-dip galvanized steel and all hardware is iridited for corrosion resistance. Special tilt-over hinged base for easy raising and lowering.

AV-14AVQ, $159.95. (10,15,20,40 Meters). 18 ft., 9 lbs. The Hy-Gain AV-14AVQ uses the same trap design as the famous Hy-Gain Thunderbird beams. Three separate air dielectric Hy-Q traps with oversize coils give superb stability and 1/4 wave resonance on all bands. Roof mount with Hy-Gain AV-14RMQ kit, $79.95.

AV-12AVQ, $114.95. (10, 15, 20 Meters). 13 ft., 9 lbs. The AV-12AVQ also uses Thunderbird beam design air dielectric traps for extremely Hy-Q performance. This is the way to go for inexpensive tri-band performance in limited space. Roof mount with AV-14RMQ kit, $79.95.

AV-18VS, $74.95. (10,12,15,17,20,30,40,80 Meters). 18 ft., 4 lbs. High quality construction and low cost make the AV-18VS an exceptional value. Easily tuned to any band by adjusting feed point at the base loading coil. Roof mount with Hy-Gain AV-14RMQ kit, $79.95.

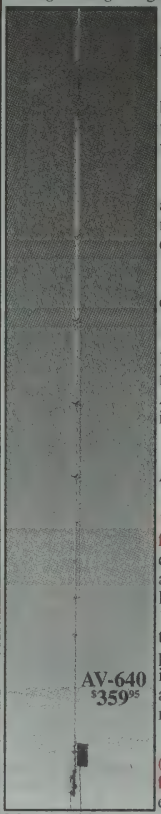
DX-88, $349.95. (10, 12, 15,17,20,30,40,80 Meters, 160 Meters optional). 25 ft., 18 lbs. All bands are *easily* tuned with the DX-88's *exclusive* adjustable capacitors. 80 and 40 Meters can even be tuned from the ground without having to lower the antenna. Super heavy-duty construction. DX-88 OPTIONS: 160 Meter add-on kit, KIT-160-88, $179.95. Ground Radial System, GRK-88, $81.95. Roof Radial System, RRK-88, $89.95.

DX-77A, $429.95. (10, 12, 15, 17, 20, 30, 40 Meters). 29 ft., 25 lbs. *No ground radials required!* Off-center-fed Windom has 55% greater bandwidth than competitive verticals. Heavy-duty tiltable base. Each band independently tunable.

Model #	Price	Bands	Max Power	Height	Weight	Wind Surv.	Rec. Mast
AV-18HT	$739.95	10,15,20,40,80	1500 W PEP	53 feet	114 pounds	75 MPH	-------
AV-14AVQ	**$159.95**	**10,15,20,40**	**1500 W PEP**	**18 feet**	**9 pounds**	**80 MPH**	**1.5-1.625"**
AV-12AVQ	$114.95	10/15/20 M	1500 W PEP	13 feet	9 pounds	80 MPH	1.5-1.625"
AV-18VS	**$74.95**	**10 - 80 M**	**1500 W PEP**	**18 feet**	**4 pounds**	**80 MPH**	**1.5-1.625"**
DX-88	$349.95	10 - 40 M	1500 W PEP	25 feet	18 pounds	75 mph no guy	1.5-1.625"
DX-77A	**$429.95**	**10 - 80 M**	**1500 W PEP**	**29 feet**	**25 pounds**	**60 mph no guy**	**1.5-1.625"**

hy-gain® PATRIOT

Hy-Gain's new **PATRIOT** HF verticals are the best built, best performing and best priced multiband verticals available today. For exciting DX make full use of your sunspot cycle with the **PATRIOT's** *low 17 degree angle* signal.



No ground or radials needed
Effective counterpoise replaces radials and ground.

Automatic bandswitching
Single coax cable feed. Each band is individually tunable. Extra wide VSWR bandwidth. End fed with broadband matching unit.

Sleek and low-profile
Low 2.5 sq. ft. wind surface area. Small area required for mounting. Mounts easily on decks, roofs and patios.

Full legal limit
Handles 1500 Watts key down continuous for two minutes.

Built-to-last
High wind survival of 80 mph. Broadband matching unit made from all *Teflon®* insulated wire. Aircraft quality aluminum tubing, stainless steel hardware.

hy-gain® warranty
Two year limited warranty. All replacement parts in stock.

AV-640, $359.95. (6,10,12, 15,17,20,30,40 Meters). 25.5 ft., 17.5 lbs. The AV-640 uses quarter wave stubs on 6, 10, 12 and 17 meters and efficient end loading coil and capacity hats on 15, 20, 30 and 40 meters -- no traps. Resonators are placed in parallel not in series. End loading of the lower HF bands allows efficient operation with a manageable antenna height.

AV-620, $269.95. (6,10,12,15,17,20 Meters). 22.5 ft., 10.5 lbs. The AV-620 covers all bands 6 through 20 Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands.

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and Nearest Dealer . . . 800-973-6572
Call your dealer for your best price!

hy-gain®

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http://www.hy-gain.com

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hy-gain VHF/UHF antennas

VHF VERTICAL ANTENNAS

V-2R
$99.95
Covers 138-175 MHz

2 Meter vertical with 3 dBd gain derived from the famous extended double zepp antenna design. Radiating elements are two collinear 5/8 waves fed in phase. 2 sets of 1/4 wave radials properly decouple lower radiator from the mast. SO-239, handles 500 Watts. 9 ft.

V-42R
$159.95
Covers 143-153, and 436-455 MHz

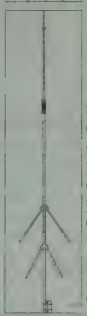
V-42R is independently tunable at 144 and 440 MHz. Fed through one coax cable, it has sets of 1/4 wave radials which properly decouple 5/8 wave radiators from the mast. Gives 5 dBd gain on UHF and 3 dBd gain on VHF. Type N, handles 200 Watts. 9 ft.

V-4R
$99.95
Covers 400-475 MHz

70 cm vertical with 3 dBD gain derived from double zepp antenna design. Type N, handles 500 Watts, 4 foot.

V-3R
$109.95
Covers 216-225 MHz

1 1/4 Meter vertical with 3dBD gain derived from double zepp design. SO-239, handles 500 Watts. 6ft. 9 inches.



V-6R
$189.95
Covers 51-54 MHz

V-6R antenna is based on 2 collinear 5/8 wave radiators. 500 Watt enclosed coil and 2 sets of 1/4 wave radials which provide complete mast decoupling and optimum pattern and gain. Rugged design withstands severe weather, also DC ground lightning protector. 25 ft., 3 inches, UHF female conn., handles 500 Watts.

Model#	Frequency	Gain dBd	Pwr Input	Wind Surv	Max Mast	Height	Weight
V-2R	138-175	3 dBd	500 Watts	105 mph	2 in. OD	9 foot	6 pounds
V-42R	143-153, 436-455	5 dBd UHF 3 dBd VHF	200 Watts Continuous	100 mph	2 in. OD	9 foot	6 pounds
V-4R	400-475	3 dBd	500 Watts	230 mph	2 in. OD	4 foot	4 pounds
V-3R	216-225	3 dBd	500 Watts	100 mph	2 in. OD	6 ft. 9 in.	5 pounds
V-6R	51-54	3 dBd	500 Watts	80 mph	1.5-2.25 in.	25 ft. 3 in.	15 pounds

VHF GROUND PLANE ANTENNA

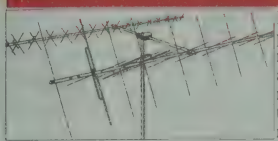
GPG-2B
$44.95
Covers 142-185 MHz

The GPG-2B, a 5/8 Wavelength Ground Plane for two meters is omni-directional and tunable from 142-185 MHz. It delivers an omni-directional gain of 1.2 dBd. Handles 100 Watts. Measures 4 feet, max mast mount accepted is 1.625 in O.D. Wind area is .30 sq. ft.

GPG-1B
$34.95
Covers 162-174 MHz

The GPG-1B is a 1/4 Wavelength ground plane similar to the GPG-2B. It has unity gain, 2 feet height and is tunable from 162-174 MHz.

OSCAR LINK 435 MHz • 145.9 MHz



VB-216SAT
$219.95
Covers 144-148 MHz

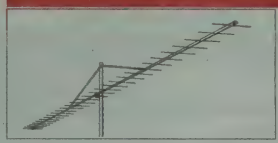
UB-7030SAT
$219.95
Covers 432-438 MHz

Hy-Gain's OSCAR antennas are complete with the necessary phasing lines, relays and hardware. It includes left and right circularity switching to reduce fading (less than 3 dB ellipticity). True RF switching elements are rated at 200 Watts and improved VSWR for higher efficiency. Feed points are encapsulated and weather protected for long life. The cross-boom, made of fiberglass, maintains the integrity of the circularity pattern.

DB-218SAT, $529.95, complete 2 Meter/440 MHz antenna system.

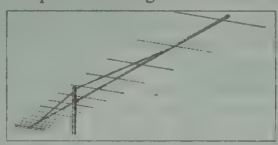
Model#	F/B ratio	Gain dBd	Pwr Input	# Elements	Boom leng	Wind Area	Weight
VB-216SAT	25 dB	11.5 dBd	200 W PEP	16	168.75 in.	1.1 sq. ft.	7 lbs.
VB-7030SAT	25 dB	14 dBd	200 W PEP	30	134 inches	.7 sq. ft.	4 lbs.

VHF/UHF DX BEAM ANTENNAS



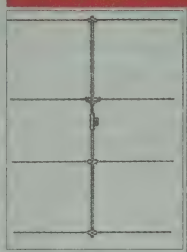
UB-7031DX
$209.95
Covers 420-438 MHz

Hy-Gain's DX-Series VHF/UHF Beams are based on the DL6WU element length and spacing and were further refined on Hy-Gain's antenna test range and by computer modeling. Both beams feature encapsulated weatherproof feedpoints with type N connectors for excellent VSWR and power handling. High quality mechanical construction is assured by heavy wall booms and boom supports made of 6063-T832 aluminum tubing, stainless steel hardware, UV stabilized thick-shoulder element insulators and PTFE coaxial baluns.



VB-215DX
$209.95
Covers 144-146 MHz

SIX METER DX BEAM ANTENNAS



VB-64DX
$129.95
Covers 50-54 MHz

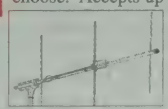
VB-66DX
$239.95
Covers 50-54 MHz

The VB-64DX and VB-66DX feature a concept in beam construction that provides actual delivered performance equalling maximum theoretical gain. The 4-element VB-64DX generates an impressive 8.2 dBd gain and the 6-element VB-66DX increases the gain to an unprecedented 10.3 dBd.

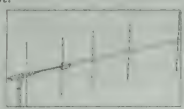
Model#	Frequency	Gain dBd	Pwr Input	Wind Area	#Elements	Boom leng	Weight
UB-7031DX	420-438	17.6 dBd	2 kW PEP	1.9 sq. ft.	31	24.06 ft.	9.25 lbs.
VB-215DX	144.0-146.0	14.2 dBd	2 kW PEP	2.75 sq. ft.	15	27.88 ft.	13.56 lbs.
VB-64DX	50-54	8.2 dBd	500 Watts	1.1 sq. ft.	4	12 ft.	10
VB-66DX	50-54	10.3 dBd	1.5kWPEP	1.8 sq. ft.	6	24.575 ft.	17

VHF FM BEAM ANTENNAS

These 2 Meter FM beam antennas include Hy-Gain's exclusive *Beta Match*™ to provide exceptional Front-to-Back ratio and maximum obtainable gains. The VB-23FM (6.1 dBd gain), VB-25FM (9 dBd gain), VB-28FM (11.8 dBd gain), and the VB-214FM (13 dBd gain) gives you a wide choice of 2 Meter Beam performance from which to choose. Accepts up to 2 inch mast.

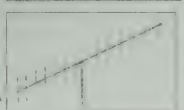


VB-23FM
$41.95
2 Meter FM Beam Antenna



VB-25FM
$51.95
2 Meter FM Beam Antenna

VB-28FM
$71.95
2 Meter FM Beam Antenna



VB-214FM
$81.95
2 Meter FM Beam Antenna

Model#	F/B(MAX)	Gain dBd	Pwr Input	Longest el	Boom leng	Mast dia.	Weight
VB-23FM	20 dB	6.1 dBd	500 Watts	40.25 in.	43.5 in.	2.0 in O.D.	2 pounds
VB-25FM	20 dB	9 dBd	500 Watts	39.625 in.	75 in.	2.0 in O.D.	3 pounds
VB-28FM	20 dB	11.8 dBd	500 Watts	40.25 in.	148.75 in.	2.0 in O.D.	4 pounds
VB-214FM	20 dB	13 dBd	500 Watts	39.5 in.	15 ft. 6 in.	2.0 in O.D.	6 pounds

hy-gain Discoverer Series

DISCOVERER 71
This rotatable dipole of low weight and wind surface area so easily fits most existing beam installations.
This antenna can be tuned to either 30 or 40 Meters with a front-to-side ratio of 30 dB for a fast, expansion of band capability.
Feeds with 50 Ohm coax. Comes with pre-formed mast clamp.

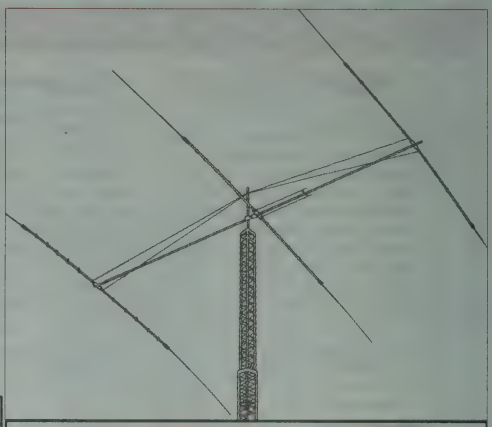
DIS-71
$269.95
Covers 30/40 Meters

DISCOVERER 72
This two-element 40 Meter beam has a unique hairpin loading system. It delivers superior performance.
Feeds with 50 Ohm coax and comes factory pre-tuned with Hy-Gain's exclusive *BetaMatch*™.
Tiltable boom-to-mast bracket and stainless steel hardware is included. Hy-Gain high power BN-4000 balun is recommended.

DIS-72
$609.95
Covers 30/40 Meters

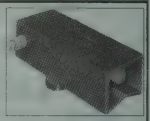
DIR-73K
$379.95
Add-on kit covers 30/40 Meters

DIRECTOR KIT 73
Converts the Discoverer 72 into a three-element beam. Even more amazing, it's all on a 35 foot boom, outperforming the other brands that are much larger.
The combination Discoverer 72 and Director Kit even fits on medium duty towers such as the HG-52SS, saving both cost and space. HyGain offers you several options with wide bandwidth and Hy-Q efficiency without coils. The antennas handle legal power limits.



Specifications:	*Discoverer Series*	*Discoverer Series*	*specs w/ Director Kit*
Model Number	DIS-71	DIS-72	DIR-73K
Gain (dBd)	4.3 dBd	4.3 dBd	5.3 dBd
Front-to-back ratio	35 dB	15 dB	26 dB
Max Power	1500 Watts PEP	1500 Watts PEP	1500 Watts PEP
Boom Length	2.7 feet	22.6 feet	35 feet
Longest Element	45 feet	44.8 feet	45 feet 7 inches
Turning Radius	22.5 feet	25 feet	28 feet 9 inches
Max Mast Diameter	1.9 in. - 2.5 in. O.D.	1.9 in. - 2.5 in. O.D.	1.9 in. - 2.5 in. O.D.
Surface Area	2.7 square feet	6.0 square feet	9.0 square feet
Net Weight	23 pounds	57 pounds	98 pounds
Max Wind Survival	100 m.p.h.	80 m.p.h.	80 m.p.h.

HY-GAIN BALUNS



BN-86, $69.95. Broadband 50 Ohm ferrite balun. Useable from 3 to 30 MHz. Recommended for all HF Yagi antennas. It provides improved front-to-back ratio. Comes w/clamp to bolt to boom, SO-239 connector.
BN-4000B, $99.95. This broadband 50 Ohm Beam current balun is potted to seal out moisture. Rated at 4000 Watts for increased power handling capabilities. Frequency range is 1 MHz to 54 MHz. Comes with SO-239 connector.
BN-4000D, $99.95. Same as 4000B for dipoles
BN-4000N, $109.95. Same as 4000B but has type "N" connector.

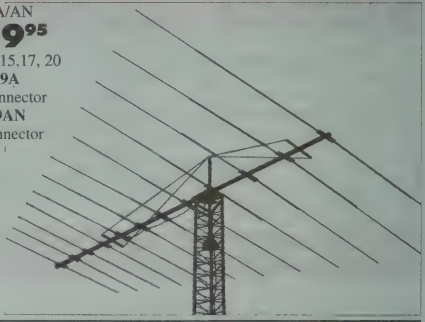
HF LOG PERIODIC ANTENNAS

LP-1009A
13-30 MHz (10,12,15, 17, and 20 Meters)
This log periodic antenna covers the complete 13-30 MHz HF spectrum under a 2:1 VSWR. Built to commercial specifications, it is used by MARS, monitoring stations, marine and government radio stations around the world and now it's available to Hy-Gain amateur customers. The discerning ham operator will appreciate its performance and ease of use. Just imagine all that spectrum coverage and only one feedline. Wind survivability of 103 mph is typical with this antenna's capabilities. Exclusive 2KW BN-4000 current type balun included. Use T2X Tailtwister or HDR-300A rotators.

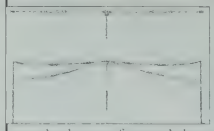
LP-1009A/AN
$1329.95
Covers 10,12,15,17, 20
LP-1009A
for UHF connector
LP-1009AN
for "N" connector

LP-1010A
10-30 MHz (10, 12, 15, 17, 20, and 30 Meters)
There are only a few antennas that offer as much HF frequency coverage as the LP-1010A. Like the LP-1009A, this antenna is built to commercial standards using stainless steel hardware and having a wind survivability of 93 mph. Rotatable with use of T2X or HDR-300A rotators.

LP-1010A/AN
$1679.95
Covers 10,12,15,17, 20 and 30 Meters
LP-1010A
for UHF connector
LP-1010AN
for "N" connector



HF Multiband Hy-Q trap DOUBLETS



DP-2BDQ
$129.95
Covers 80 and 40 Meters

DP-5BDQ
$239.95
Covers 80 thru 10 Meters

DP-2BDQ, 101 feet maximum length of dipole. DP-5BDQ, 94 feet max length. DP-2BDQ and DP-5BDQ are designed for horizontal or inverted "V" rated at legal power. Individually pretuned matched traps for each band, 50 Ohm feed, coaxial cable not included.

ADJUSTABLE HF DIPOLE ANTENNA

DP-19PD
$269.95
Covers 80 thru 10 Meters

2-30 MHz frequency range, 80-10 Meters. Perfect for field day or anytime you need to put up a dipole in a hurry, it uses braided nylon wire rope. Conductors are woven into the rope. Uncoil the conductor using pre-marked frequencies for easy installation. 100 feet of support rope on each end and a SO-239 (UHF) connector is on center insulator.

HY-GAIN INSULATORS FOR MULTIBAND DIPOLE ANTENNA

C-1, $24.95. Center Insulator for multiband dipole antenna.

C-1C, $24.95. Similar to C-1, but has SO-239 antenna connector.

E-1, $6.95. End Insulator for Multiband doublet antenna. Set of 2.

CONTESTER HEADSET

CLOSEOUT *SALE!*

HS-2400
$119.95
Ship Code A

MIRAGE . . . 160 Watts on 2 Meters!

Turn your mobile, base or handheld into 160 Watt powerhouses and talk further, longer, clearer . . . All modes: FM, SSB, CW . . . Superb GaAsFET preamp . . . Overdrive, high SWR, Over-temperature protection . . . Remote controllable . . .

MIRAGE's *most popular* amplifier gives you 160 Watts of output power for just 25 W in from your base/mobile rig!

B-2518-G **$299** Suggested Retail

MIRAGE RUGGED!

The B-2518-G is ideal for your 20 to 60 Watt 2 Meter mobile or base station.

You'll talk further, longer, clearer on all modes -- FM, SSB, CW -- hear weak signals better than you've ever heard before!

You get a low noise 20 dB GaAsFET preamp with an excellent 0.6 dB noise figure for pulling out weak signals.

Mirage amps has legendary ruggedness. *We know one that's been in use since 1979!*

Your B-2518-G is *fully protected* with features found only in expensive commercial amplifiers.

High SWR or excessive input power can damage your amplifier. Protection circuits automatically bypass your amplifier to prevent damage and an LED lights to warn you.

Your expensive power transistors are protected from overheating by MIRAGE's exclusive *Therm-O-Guard*™. It automatically shuts down and bypasses your amplifier if needed.

The B-2518-G *knows* when you're transmitting and kicks in 160 Watts of power. Adjustable time delay gives you smooth transmit/receive switching. Remote external keying. You can remotely control your B-2518-G and place it out of the way. An RC-2, $45, Remote Control turns Power on/off, Preamp On/Off and select SSB/FM.

Extra heavy duty heatsink spans the entire length of cabinet. Draws 17-22A from 13.8 VDC. Compact 12x3x5½ inches.

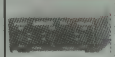
More 160 Watt, 2 Meter Amps

B-5018-G, $299. Same as B-2518-G, but for 10 to 50 Watt mobile or base stations. Gives you 160 Watts out for 50 W in.

B-1016-G, $379. MIRAGE's most popular *dual purpose* HT or mobile/base 2 Meter amp gives you 160 Watts out for 10 Watts in. For 0.2 to 15 Watt rigs. Use RC-1, $45, remote control.

B-215-G, $379. MIRAGE's most popular *handheld* 2 Meter amplifier gives you 150 WAtts out for 2 Watts in and 160 Watts out for 3.5 Watts in. For 0.25 to 5 Watt hts. Use RC-1, $45.00.

Remote Control Head for Amps



RC-1/RC-2, $45, remote controls most MIRAGE amps. Power On/Off, preamp On/Off, switch for SSB/FM. 18 foot cable (longer available with special order). Tiny 1¾x3¾x2½ in. 5018/2518 use RC-2. Others, use RC-1. Call Mirage for positive compatibility.

Power Curve -- typical output power in Watts

B-215-G	76	160	--	--	--	--	--	--	--
B-1016-G	30	150	155	160	--	--	--	--	--
B-2518-G	0.5	56	91	111	135	153	160	--	--
B-5018-G	--	52	99	119	125	130	135	145	160
Watts In	0.5	5	8	10	15	20	25	35	50

Mirage 150 Watts 6 Meter Amplifier

FCC Type Accepted!

A-1015-G **$389** Suggested Retail

The A-1015-G is the world's most popular all mode FM/SSB/CW 6 Meter amp! Bust through 6 Meters with 150 Watts of brute power and work exotic DX! Power Curve chart shows typical output power.

Power Curve -- typical A-1015-G output power in Watts

Watts Out	6	22	42	63	84	98	122	142	150
Watts In	.25	1	2	3	4	5	7	9	10

The A-1015-G is ideal for your 1-15 Watt mobile or base station rig.

A built-in low noise GaAsFET receive preamp gives you 20 dB gain -- lets you dig out weak signals and score exotic DX on sporadic E!

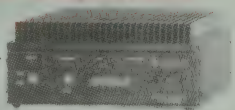
You'll talk further, longer and clearer on all modes--FM, SSB, CW.

Hear weak signals better than you've ever heard before!

Extra heavy-duty heatsink spans entire length of cabinet. Draws 18-22 amps at 13.8 VDC. 5 lbs, 12Dx3Hx5½W inches.

2-Meter 300 Watt Amplifiers

Mirage's B-5030-G gives you 300 Watts of brute power for 50 Watts input on all modes -- FM, SSB, or CW! It's ideal for 20 to 60 Watt 2-Meter mobile or base rigs. Hear weak signals -- low noise GaAsFET preamp gives you excellent 0.6 dB noise figure. Select 15 or 20 dB gain. Heavy-duty heatsink spans entire length of cabinet -- prevents overheating. Power transistors are protected by Mirage's Therm-O-Guard™. Fully protected from high SWR and excessive input power. Has warning LED, smooth adjustable transmit/receive switching with remote external keying. Draws 48A@ 13.8 VDC. 12x12x5 in. RC-1, Remote Control Head, $45.00.



B-5030-G **$669** Suggested Retail

Power Curve -- typical output power in Watts

B-5030-G	**$669**	--	--	55	150	220	300
B-2530-G	**$689**	30	95	140	250	300	--
B-1030-G	**$689**	80	225	270	300	--	--
Watts In	**Price**	1	3	5	10	25	50

223-225 MHz Amplifiers

Choose from 10 different models -- 20 to 220 Watts out for 2 to 50 Watts in. $129 to $655. Extra heavy duty heatsink spans the entire length of cabinet. Protection circuits automatically bypass your amplifier to prevent damage and an LED lights to warn you. Your expensive power transistors are protected from overheating by Mirage's exclusive *Therm-O-Guard*™. It automatically shuts down and bypasses your amplifier if needed. All Mirage C-Series Amps have a 20 dB GaAsFET preamp.

MIRAGE C-Series Specifications

Model#	Price	Input	Output	Current
C-22-G	$169.00	.1-5 W	3-36 W	5 amps
C-211-G	$339.00	.3-5 W	50-126 W	25 amps
C-106-G	$239.00	.3-15 W	3-60 W	12 amps
C-1012-G	$339.00	.3-15 W	6-120 W	20 amps
C-2512-G	$315.00	.3-40 W	.5-120 W	18 amps
C-5012-G	$334.00	.35-55 W	3-120 W	18 amps
C-1022-G	$655.00	.25-10 W	40-220 W	48 amps
C-2522-G	$655.00	.25-30 W	1.5-220 W	48 amps
C-5022-G	$639.00	.35-55 W	5-220 W	48 amps

420-450 MHz Amplifiers

All UHF models feature all modes: FM, SSB, CW, adjustable delay for SSB and remote control outlet. They also have a heavy duty heatsink that spans entire length of cabinet, 50 Ohm impedance input and output, 13.8 VDC voltage. **D-3010-N --** 100 W out/30 in. For 5 to 45 Watt *mobile/base*. **D-1010-N --** 100 W out/10 in. For handhelds or mobile/base. **D-26-N --** 60 W out/2 in. for hts.

Amateur TV Amps

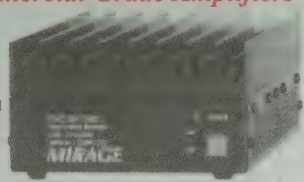
Industry standard ATV amps available -- **D-1010-ATVN, $414.** 82 Watts PEP out / 10 in. **D-100-ATVN, $414.** 82 Watts PEP out/2 Watts in.

MIRAGE D-Series Specifications

Model#	Price	Input	Output	Current
D-15-N	$189.00	.25-2 W	3-18 W	3 amps
D-26-N	$269.00	.4-5 W	50-126 W	12 amps
D-100ATVN	$414.00	0.5-5 W	15-52 W	20 amps
D-1010-N	$395.00	.30-15 W	5-110 W	20 amps
D-1010ATVN	$414.00	1-15 W	5-100 W	20 amps
D-3010-N	$365.00	5-45 W	7-100 W	20 amps

Commercial Grade Amplifiers

PAC-30-130-B $299 Suggested Retail



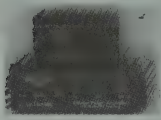
Commercial Amplifiers are available for 150-174, 450-470 MHz and VHF marine bands, 70-130 Watts out. Most feature Over-temperature sensing that bypasses amplifier when safe operating temperatures are exceeded; heavy duty heatsinks finned on 3 sides; and wide input power range. These amps were designed for two-way radio signal commercial mobile or fixed location use. All commercial amps are FCC type accepted.

MIRAGE Commercial Amp Specifications

Model#	Price	Input	Output	Preamp	Frequency
B-34-GC	$159	.5-3 W	10-30 W	Yes	150-162
PAC-1070-B	$269	10-30 W	5-70 W	No	150-174
PAC-15-100C	$395	5-25 W	5-100 W	No	450-475
PAC-30-130B	$299	10-30 W	1-100 W	No	150-174
M-120-G	$199	.1-3 W	10-25 W	Yes	156-158.5

MIRAGE 2 Meter/440 MHz Amps for HTs

35 Watts on 2-Meters



B-34-G
$89.95
Suggested Retail

Add this MIRAGE amp to your 2 Meter handheld and get 35 Watts output . . . talk further, longer, clearer . . . incredibly low $89.95!

Talk further . . . reach distant repeaters. Log onto far away packet bulletin boards.

It's the best HT amplifier money can buy! Here's why:

First-class strip-line techniques and modular construction gives superb RF performance and unsurpassed reliablity.

Custom wrap around heatsink provides excellent heat distribution -- runs cool for extra long life.

Reverse polarity protection can save your amp and your pride if you connect power backward.

Automatic RF sense transmit/receive switch makes operation super easy.

Low input SWR keeps your handheld safe from overheating.

Individual pushbutton switches lets you select FM/SSB operation, receive preamp on/off and power on/off.

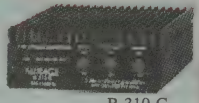
LED indicators show On-Air, receive preamp on and power on.

Has super compact size, 5¼x1¾x4¾ inches. Free mobile mounting bracket and hardware. Superb, full one year warranty.

B-34, $69.95. Similar to B-34-G but FM only, less preamp, mobile bracket. Measures just 3⅛x1¾x4¼ inches.

Power Curve -- typical B-34-G/B-34 power in Watts						
Watts out	8	12	18	30	33	35
Watts in	.25	0.5	1	2	3	4

100 Watts on 2 Meters



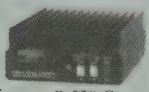
B-310-G
$199
Suggested Retail

Boost your 2 Meter handheld to 100 Watts! This ultrea-compact all mode B-310-G amplifier is perfect for all handhelds up to 8 Watts. ***Get 100 Watts out with just 4 Watts in!*** Works on all modes: FM, SSB, CW.

Superb features include: 15 dB low noise GaAsFET preamp, reverse polarity protection, SWR protection, overdrive protection, automatic transmit/receive switch. Includes free mobile bracket and handheld BNC to B-310-G patch cable.

Ultra compact size makes it great for base and mobile operation. 4¾x1¾x7¾ inches. Weighs 2½ pounds.

200 Watts on 2 Meters



B-320-G
$449.95
Suggested Retail

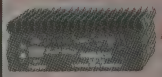
Add this amp to your 2 Meter HT or mobile radio and get 200 Watts output. Talk further, longer, clearer . . .

Has 15 dB GaAsFET preamp, works all modes FM/SSB/CW, high SWR protection, mobile mounting bracket, input level switch for selecting proper input power from handheld or mobile radio.

Low power input for handheld radios, 250 mW to 10 Watts. High power input for mobile radios, 10 Watts to 50 Watts.

Custom wrap-around heatsink gives excellent heat dissipation as well as attractive appearance. 1 Year Mirage Warranty.

MIRAGE SUPER *DUAL BAND* AMPLIFIERS



BD-35
$159.95
Suggested Retail

Add this *MIRAGE BD-35* dual band amp and boost your handheld to a much more powerful mobile or base -- Get 45 Watts on 2 Meters or 35 Watts on 440 MHz! Get 35 Watts out with just 4 Watts in!

MIRAGE's exclusive *FullDuplex Amp*™ lets you talk on a band and listen on another band at the same time -- just like a phone conversation (requires compatible HT).

Features auto band selection, reverse polarity protection, on-air leds, single connector for dual band radios/antennas, free mobile bracket and more!

Works with all HTs to 7 Watts. Super compact 5Wx1½Hx5D inches.

B-38-G
$299.95
Suggested Retail

The *MIRAGE B-38-G* gives you 70 Watts of brutal power on 2 Meters and 60 Watts on 440 MHz! Use your low power handheld or mobile. It's two amplifiers in one. An auto switch select determines use of VHF/UHF. Input is 250 mW to 5 W.

MIRAGEs *LED PowerGraph*™ indicates output power and comes completely alive with 70/60 Watts. Low noise 15 dB GaAsFET preamp lets you dig out really weak stations. you get separate 144/440 MHz preamp LEDs. 6½Wx2½Hx9D in.

Hi-SWR. Over temp and reverse polarity protection. Free BNC to PL-259 patch. Draws just 13.8 VDC at 15 amps.

MIRAGE . . . Handheld Docking Boosters

Slide your handheld into a MIRAGE Docking Booster and your handheld instantly becomes a powerful mobile or base station! Only MIRAGE gives you selectable HT voltages that let you use most handhelds old or new. Requires 13.8 VDC.

B-24-G
$114.95
Suggested Retail

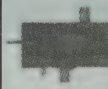
BD-25
$164.95
Suggested Retail

B-24-G, $114.95. 2 Meter Docking Booster gives 50 Watts output with just .5 to 8 Watts input. 18 dB GaAsFET preamp with on/off switch. Preamp on, On-Air and Transmit LEDs. Small 3¼x3¼x4¼ in.

BD-25, $164.95. Dual Band Docking Booster gives 45 Watts on 2 Meters and 35 Watts on 440 MHz with .5 to 8 Watts input. MIRAGE *FullDuplex Amp*™ lets you talk on one band and listen on the other band at the same time. Requires compatible HT. Automatic band selection, Frequency Band and Power On LEDs. Reverse Polarity protection, on/off switch. 3¼x3¼x5¼ inches. Choose an adapter to fit your HT. ***See Adapter Chart, right, $9.95 each.***

Choose an adapter to fit your handheld	
Adapter#	Manufacturer/Handheld Type
MI-1	ICOM 2N/02N/3N/12N/2G/3G/12G/23/2AT
MI-2	IC-2S/2SAT/2SR/3S/3SAT/3SR/24/W2/X2
MI-3	ICOM W21/X21/W21T/X21T, etc.
MI-4	ICOM T7/T22/T42/W32, etc.
MY-1	YAESU FT-23/204/73/704/104/728, etc.
MY-2	YAESU FT-24/74/205/705/305/805/729, etc.
MY-3	YAESU FT-11/51, etc.
MY-4	YAESU FT-50/40/10, etc.
MK-1	TH-25/25G/45/45G/55/75/77, etc.
MK-2	TH-22A/22AT/42A/42AT/59/79/79E, etc.
MS-1	STANDARD C150/450/520/550/620, etc.

MIRAGE Low Noise GaAsFET preamps

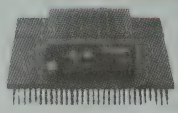


High gain ultra low noise GaAsFET preamps for receiving weak signals. Selectable gain prevents receiver intermod. 15 to 22 dB gain. Less than 0.8 dB noise figure.

Automatic RF switching up to 160 Watts. Choose In-shack or Mast-Mount models (includes remote control) to reduce loss. Rugged die-cast enclosure.

Frequency (MHz)	*In Shack $139*	*Mast Mount $195*
28-30	KP-1/10M	KP-2/10M
50-54	KP-1/6M	KP-2/6M
144-148	KP-1/2M	KP-2/2M
220-225	KP-1/220	KP-2/220
430-450	KP-1/440	KP-2/440

MIRAGE Repeater Amplifiers



11 models to choose from -- continuous duty all mode FM/SSB/CW repeater amplifiers for 6, 2, 220 MHz, 450 MHz, and ATV service.

MIRAGE Repeater Amp Specifications				
Model#	Price	Input	Max Out	MHz
A-1015-R	$579.00	.25-5 W	98 W	50-52
B-215-R	$559.00	.25-1 W	115 W	144-148
B-1016-R	$599.00	.25-3 W	130 W	145-148
B-2516-R	$549.00	.5-10 W	111 W	145-148
C-211-R	$629.00	.25-.5 W	80 W	223-225
C-1012-R	$629.00	.25-6 W	96 W	223-225
C-2512-R	$595.00	.05-15 W	90 W	223-225
D-1010-NR	$654.00	.25-4 W	80 W	440-450
D-3010-NR	$625.00	1-15 W	75 W	440-450
D-100-ATVN-R	$654.00	.25-1 W	52 W	420-450
D-1010-ATVN-R	$654.00	.25-4 W	80 W	420-450

Accurate SWR/Wattmeters

Read SWR directly and forward, Reverse, Peak/Average power. Remote coupler. 1.8-30, 50-200, 420-450, 1260-1300 MHz models.

One year MIRAGE Warranty

MODEL	PRICE	FREQ	SWR sens	PWR
MP-1	$235.00	1.8-30 MHz	1-2 Watts	2000 W
MP-2	$235.00	50-200 MHz	1-2 Watts	1500W
MP-3	$265.00	420-450MHz	5 Watts	150 W

Nearest Dealer/Free Catalog: 800-647-1800

Technical: 662-323-8287 **Fax:** 662-323-6551

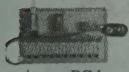
MIRAGE COMMUNICATIONS EQUIPMENT

300 Industrial Park Road, Starkville, MS 39759

Prices and specifications subject to change. *2002 Mirage Communications.

VECTRONICS(R) kits

High-performance electronic kits . . . fun to build and use!



Vectronics Comprehensive Soldering Course Kit is the best home study soldering course available! Includes theory, quizzes, PC board, tools, safety, techniques and materials. Get PRO soldering skills and fun LED project. Gets you ready for "through-hole" PC board assembly and repair. Get skills to tackle soldering jobs and projects on the repair bench. *Simple skill level.* Order **VEC-1500K, $29.95.**

Aircraft Receiver Kit tunes entire voice aircraft band 118-136 MHz. Picks up air traffic 100 miles away. Track progress of incoming/outgoing traffic in your area, gain advanced weather information, and discover how the National Air Traffic System really works. Great way to learn about aviation. Use 9V battery. Drives external speaker/phones. 1³/₄x4x3¹/₂ in. *Intermediate skill level.* Order **VEC-131K, $29.95.**

20/30/40/80 Meter Receiver Kits give high performance! Covers entire band or tailor to cover desired portion. Copy CW/SSB/AM. NE602/ 612 mixer-oscillator, LM386 high gain audio amplifier. 1³/₄x4³/₄x 5¹/₄ in. *Moderate skill level.* Order **VEC-1120K** (20 Meters),**VEC-1130K**(30 Meters),**VEC-1140K** (40 Meters), **VEC-1180K** (80 Meters), **$29.95 ea.**

20/30/40/80 Meter QRP CW transmitter Kits have variable crystal oscillator tuning, front panel switch selects 1 of 2 crystals. 1 crystal included. Transmit and Receive switch. Connect receiver. 1³/₄x4x3¹/₂ in. *Intermediate skill level.* Order **VEC-1220K** (20 Meters), **VEC-1230K** (30 Meters), **VEC-1240K** (40 Meters), **VEC-1280K** (80 Meters), **$29.95 ea.**

Tunable SSB/CW Audio Filter Kit has sharp *four* pole peak and notch filters. Zero in with frequency control & adjust bandwidth for best response. Tune frequency from 300-3000 Hz. Notch is an outstanding 50 dB. 1 Watt amplifier. Speaker/Phone jacks. 12 VDC at 300 mA. 1³/₄x4³/₄x5¹/₄ in. *Intermediate skill level.* Order **VEC-841K, $34.95.**

Super CW filter/amplifier Kit has powerful 1 watt audio amplifier to drive speaker. 8 poles active IC filtering uses cascaded low-Q stages. 3 bandwidths: 80,110, 180 Hz. Center frequency: 750 Hz. Up to 15 dB. Use 9-18VDC, 300 mA max. 1³/₄x4 x3¹/₂ in. *Simple skill level.* Order **VEC-821K, $29.95.**

Super SSB Audio Filter Kit improves readability with 8 poles, optimizes audio bandwidth, reduces SSB splatter, low, hi-pitched interference, hiss, static crashes, background noise. Use 9V battery. 1³/₄x4x 3¹/₂ in. *Simple skill level.* Order **VEC-830K, $19.95.**

144/220/440 MHz Low-Noise Preamp Kits soup up your antenna system. Helps pull in weak signals. Works wonders for scanner or ham-band receiver. Gives great low-noise performance and immunity from damaging electrostatic discharge. 1x1¹/₂ in. *Simple skill level.* Order **VEC-1402K** (144 MHz),**VEC-1422K** (220 MHz), **VEC-1444K** (440 MHz), **$17.95.**

High-performance 2 Meter Preamp Kit pulls weak signals out of noise. Solves three reception problems -- boosts signals using a 1-dB noise figure microwave transistor, provides razor-sharp bandpass filtering, eliminates unwanted electrical noises with built-in balun. Uses 9-14 volts DC. Tiny 1¹/₂x3x1 in. fits in any size box. *Intermediate skill level.* Order **VEC-1402DK, $59.95.**

2/6/10 Meter FM Receiver Kits let you tune in the world of ham radio. Each cover the entire FM sub-band and runs off your 9V battery. Plug in speaker or headphones for clear reception. 1³/₄x4x3¹/₂". *Intermediate skill level.* Order **VEC-1002K** (2 Meters), **VEC-1006K** (6Meters), **VEC-1010K** (10 Meters), **$34.95 each.**

Full featured CW Keyer Kit is the best electronic keyer bargain in radio! Self-completing dot-dashes and dot-dash memory forgive timing errors. Front panel volume/speed (3-65 wpm) controls. Weight adjusts 25-75%. Sidetone (300 -1000Hz) has LM386 audio amp for external speaker/phones. Iambic A or B, fully automatic or semi-auto "bug" mode. RF proof. Sleep Mode battery saver. Use 9V battery. 1³/₄x4x 3¹/₂ in. *Simple skill level.* Order **VEC-201K, $24.95.**

CW Memory Keyer Kit stores 512 characters in four 128 character non-volatile EEPROM message memories. *Carry on entire QSOs by just pressing memory message buttons.* True sinewave sidetone with soft rise and fall time eliminates harsh keyclicks. Has all features of VEC-201K CW Keyer Kit. 1³/₄x 6³/₄x5¹/₄ in. *Simple skill level.* Order **VEC-221K, $69.95.**

2 Meter Monitor Kit receives 144-148 MHz. Low noise, high gain RF preamp gives you excellent 0.1 uV sensitivity. Air variable tuning capacitor has 8:1 reduction. Dual conversion superhet provides selectivity and stability. Automatically eliminates squelch tails. Built-in speaker, squelch, tone, volume controls.19¹/₄" antenna. 9V battery. 2x4¹/₄x4". *Intermediate skill level.* Order **VEC-104K, $79.95.**

5 Watt 2 Meter FM transmitter Kit lets you transmit voice and data -- AFSK data (up to 1200 baud) and FSK data (to 9600 baud). Jumper select reactance or direct FM modulators. Reliable Motorola NBFM Xmitter IC/PA transistor. Crystal controlled (x8 frequency multiplication). -60 dBc spurs, harmonics. 12-14 VDC, 1.5A. 5-pin DIN mic jack. 1³/₄x4³/₄x 5¹/₄". *Difficult skill level.* Order **VEC-1202K, $99.95.**

Ni-Cad/Ni-MH Battery Charger Kit safely quick charges expensive batteries -- no overcharging -- many in less than an hour. HTs, cell phones, camcorders, lap top computers. Handles 1-12 cells. Charging status LEDs. Discharge before charge function reconditions batteries. Also removes memory effect. Runs on 12-15 VDC. 1³/₄x4³/₄x5¹/₄ inches. *Moderate skill level.* Order **VEC-412K,$49.95.**

Shortwave Converter Kit converts AM or AM/FM radios to shortwave receivers at a push of a button. Choose 2 1 MHz bands between 3 and 22 MHz. Popular 13,16,19, 25, 31, 41, 49 and 60 Meters international bands. On/off bypass, NE-602/612 mixer-oscillator IC and tuned input circuit. 9 V battery. 1³/₄x4x3¹/₂". *Intermediate skill level.* Order **VEC-101K, $27.95.**

Super CW Audio Filter Kit gives you three bandwidths: 80, 110, 180 Hz. Eight poles gives super steep skirts with no ringing. Pull CW QSOs out of terrible QRM! Plugs into phone jack to drive phones. QRM down 60 dB one octave from center frequency (750 Hz) for 80 Hz bandwidth. Improves S/N ratio 15 dB. Use 9V battery. 1³/₄x4x 3¹/₂ in. *Simple skill level.* Order **VEC-820K, $19.95.**

AM Radio Transmitter Kit lets you set up your own AM station and broadcast crystal clear programming from your studio with *you* as the disc jockey or talk show host. Use CD player, tape deck, etc. Choose clear frequency from 530-1750 KHz. Standard line level or microphone input. Easy connection. Audio level adjustment. 1³/₄x4x3¹/₂ inches. *Simple skill level.* Order **VEC-1290K, $29.95.**

49 MHz Wireless Band Monitor Receiver kit lets you explore weak wireless signals from miles around. Baby monitors, cordless phones, walkie-talkies, wireless intercoms and more! Electronic tuning covers just the 49 MHz band. *Intermediate skill level.* **Order VEC-1016K, $34.95.**

Crystal radio set Kit lets you relive the experience of early radio pioneers. This baby really works! Wind your own inductor, wire up the earliest radio circuit without soldering a thing and listen to the magic of radio that needs no power. Put up an antenna, connect a ground. Stations will come in amazingly loud and clear. 1³/₄x5x6¹/₂ in. Includes antenna wire, sensitive earphone. *Simple skill level.* Order **VEC-121K, $19.95.**

Shortwave Receiver Kit lets you listen to the world! Covers 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15 and 13 Meter bands. Explore AM, SSB, CW, WWV, RTTY and Packet signals. Vernier reduction drive, smooth regeneration control, RF stage. *Includes all metal cabinet.* 2 earphone jacks. Use 9V battery. 2¹/₂x7x6 in. *Intermediate skill level.* **VEC-102K, $59.95.**

QRP Transceiver Kits for 80/40/30/20 Meters give you VXO frequency control, broad-banded transmitter circuitry, solid one Watt plus output, shaped keying, .3 uV sensitivity, direct conversion receiver. Includes crystal for popular QRP frequency. 1³/₄x 4³/₄ x5¹/₄". *Intermediate skill level.* Order **VEC-1380K** (80 Meters),**VEC-1340K**(40 Meters),**VEC-1330K** (30 Meters),**VEC-1320K**(20 Meters), **$59.95 each.**

Emergency and Business Band Receiver lets yougather news first hand -- tune in local fire, police, ambulance, public service, business, etc. Master 2-way radio lingo, operating procedures and police 10-codes as you ferret out the "real story" behind the news! Use 9V battery. *Intermediate skill level.* **Order VEC-1012K, $34.95.**

Portable CD Amplifier Kit has 4 Watt per channel amplifier pumps out plenty of audio. Lets you plug in a portable CD player and a pair of 8 Ohm speakers. It'll fill your patio, backyard, or any room with your favorite music. Tone and volume controls. Use 12V battery or 12 VDC source. *Simple skill level.* Order **VEC-1604K, $19.95.**

Vacuum-Tube Preamplifier Kit lets you enjoy the warm and gutsy vintage sound of a real life *glow-in-the-dark* vacuum tube preamp. The smooth sound of vacuum tubes comes from the tube's inherent nonlinearity and high degree of even-harmonic distortion. Includes tube, 110 VAC power supply. *Moderate skill level.* Order **VEC-1680K, $99.95.**

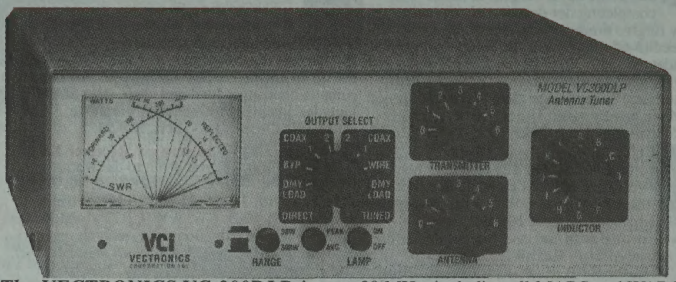
"BS" Meter (voice stress analyzer) Kit analyzes voice stress. Is the president telling the truth? An LED bargraph shows stress level when subject's voice pattern changes. Your subject can be live, radio, TV, etc. *Moderate skill level.* Order **VEC-8210K, $39.95.**

Counter Surveillance Monitor Kit lets you search out and remove electronic bugs! Highly sensitive wideband receiver detector. Stop your wife from catching you in a bad position. The closer a bug is, the higher pitch of audio. Use 9 V battery. *Moderate skill level.* Order **VEC-8218K, $39.95.**

Voice Activated Recorder Switch Kit can remotely and automatically record conversations, speeches and more. Don't waste tape by not recording silence. Plug into the remote jack of a recorder and it activates when it hears speech. Built-in microphone, on/off switch. Use 9V battery. *Simple skill level.* Order **VEC-483K, $19.95.**

FM Stereo Transmitter Kit lets you connect your CD player, tape or other source and broadcast clear stereo programming on the FM band! Incredibly realistic grand movie theater sound! Use to assist hard-of-hearing. Frequency adjusts 88-108MHz. Use 9V battery or 5-15 VDC. *Moderate skill level.* Order **VEC-1292K, $34.95.**

THE VECTRONICS VC-300DLP . . .
300 WATT ANTENNA TUNER



- *Multi48™ Inductor*
- *Cross-Needle Meter*
- *8 Position Antenna Switch*
- *Built-in Dummy Load*
- *1.8 to 30 MHz Coverage*

VC-300DLP
$159.95
Ship Code B

The VECTRONICS VC-300DLP is the world's most versatile 300 Watt antenna tuner!

You'll get everything you've ever wanted . . . precise inductance control that rivals roller inductors . . .the ability to match any real antenna . . . full 1.8-30 MHz coverage . . .peak reading backlit Cross-Needle Meter . . . 8 position antenna switch . . . built-in 50 Ohm dummy load . . . finest components available and world class quality.

Precise Inductance Control

VECTRONICS' *exclusive Multi48™* inductor gives you *forty-eight* inductance values -- you'll get precision tuning that rivals the most expensive roller inductors.

Tune any antenna 1.8-30 MHz

You can tune any real antenna from 1.8 to 30 MHz, including all MARS and WARC bands. Use verticals, dipoles, inverted vees, yagis, quads, long-wires, whips, G5RVs, etc.

Has 4:1 balun for balanced line antennas.

Handles up to 300 Watts SSB PEP, 200 Watts continuous (150 Watts on 1.8 MHz).

Peak Reading Cross-Needle Meter

The VC-300DLP backlit Cross-Needle Meter displays SWR, forward and reflected power simultaneously. Reads both peak and average power on 30/300 Watt scales. Meter lamp has front panel switch and uses 12 VDC or 110 VAC with AC-12 adaptor, $12.95.

Versatile Antenna Switch

The VC-300DLP eight position antenna switch lets you select two coax fed antennas, random wire/balanced line or built-in dummy load for use through your tuner or direct to your transceiver. Bypass position bypasses your tuner but keeps your SWR Power meter in line.

Built-in Dummy Load

A built-in 50 Ohm dummy load makes tuning up your rig easy! Use it for testing and repairing your rig, setting power level, adjusting your mic gain and more.

World Class Quality

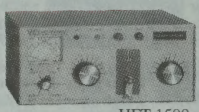
The finest components available and the highest quality construction gives you the *best* 300 Watt tuner that you can buy.

A chemically treated aluminum case with durable baked-on paint and scratch-proof multi-color Lexan front panel looks great for years of dependable service.

Try any product for 30 days

Call toll-free 800-363-2922 and order any product from VECTRONICS. Try it for 30 days. If you're not completely satisfied return it for a full refund, less shipping and handling -- no hassles. All VECTRONICS products come with a one year warranty.

2 kW Antenna Tuner



HFT-1500
$459.95
Ship Code D

You can tune any real antenna from 1.8 to 30 MHz for absolute minimum SWR. The HFT-1500 is crafted of the finest components available . . . two heavy duty 4.5 kV transmitting variable capacitors and a high current roller inductor with a precision 5-digit gear driven turns counter. Gives you arc-free operation up to 2 kW PEP SSB. Has backlit, peak-reading Cross-Needle SWR Power Meter, *SSB*Analyzer Bargraph™*, 6 position ceramic antenna switch, 4:1 Ruthroff balun for balanced line. Scratch proof Lexan front panel. 5.5x12.5x12 inches.

300 Watt Mobile3 Tuner

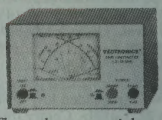
VC-300M
$109.95
Ship Code A

The VC-300M Mobile Antenna Tuner is compact, lightweight, easy-to-operate and is our most economical tuner. It's compatible with any mobile antenna and any mobile HF transceiver and is compact enough to fit the most compact car. It can also be used at home with dipoles, vees, verticals, beams or quads fed by coax. Backlit dual movement meter simultaneously monitors power and SWR. Covers 18 to 30 MHz. Handles 300 Watts SSB PEP, 200 Watts continuous, (150 Watts on 1.8 MHz). 7.25x8.75x3.6 inches. Weighs 3.4 pounds.

VC-300D, $199.95. Similar to VC-300DLP. Has 21 segment SSB bargraph.

SWR/Power Meters

PM-30 **$79.95** Ship Code A
PM-30UV **$89.95** Ship Code A



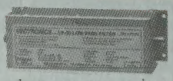
PM-30, $79.95, for 1.8 to 60 MHz. Displays forward and reflected power and SWR simultaneously on dual movement Cross-Needle Meter. True shielded directional coupler assures accuracy. Backlit meter displays peak or average power in 300/3000 Watt ranges. First-rate construction includes scratch-proof case/front panel. 5.3x5.75x3.5 inches. SO-239 connectors.

144/220/440 MHz, 30/300 Watt ranges. PM-30UV, $89.95, has SO-239 connectors. PM-30UVN, $89.95, has N connectors. PM-30UVB, $89.95, has BNC connectors.

1500 Watt dry Dummy Load

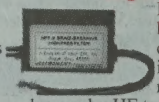
DL-650M, $74.95. Handles 100 Watts continuous, 1500 Watts for 10 seconds to 650 MHz. Ceramic resistor. SWR< 1.3. SO-239. **DL-650MN, $79.95** has N connector. **DL-300M, $44.95.** 300 Watt dry dummy load. **DL-300MN, $49.95** with N connector. **DL-2500, $199.95.** 2500 Watts dry dummy load is fan cooled. DC to 150 MHz. **DL-2500N, $199.95** with N connector.

Low Pass TVI Filter



LP-30, $69.95. Eliminates TVI by attenuating harmonics at the source. Plugs between transmitter and antenna or tuner. Features nine pole Chebyshev design. Insertion loss is only 0.25 dB at 30 MHz. 52 Ohm impedance. Handles 1500 Watts. **LP-2500, $139.95.** Handles up to 2500 Watts key down. SO-239 connectors.

High Pass TVI Filter

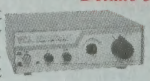


HPF-2, $29.95. Installs between VCR and TV and cable TV or antenna lead-in cable. Eliminates or reduces interference caused by nearby HF transmitters. Unique common-mode rejection (RF current on shield of the coax cable) using toroid ferrite core. Uses "F" connectors. **HPF-1, $24.95.** Low loss in TV passband 52 to 550 MHz.

Tuned Active SWL Antenna

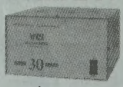
AT-100, $79.95. Portable compact antenna is perfect for indoor use by itself or with an outside antenna. Tunes from 300 KHz to 30 MHz including VLF, AM broadcast, all shortwave and ham radio bands.

Deluxe bug-free CW Keyer



CK-200, $79.95. Speed, weight, tone, volume controls, tune, iambic A/B switch for 3 types of keying output, speed control 6-50 wpm, self-complete dots/dashes. Use 9V battery/110 VAC.

DC Power Supplies



PS-50F, $199.95. 35 Amps continuous. DC regulated, design features foldback current limiting, overvoltage protection, fixed voltage output, fan cooled, adjustable output, more. **PS-30F, $129.95.** 25 Amps continuous.

MFJ RF Sense Transmit/Receive Switch

for vintage Boat Anchor Transmitters and Receivers

New!

MFJ-1708
$69.95
Ship Code A

Do you enjoy using vintage tube type transmitters and receivers of your youth? **It** was a real chore to switch your antenna from transmit to receive and back -- *it still is!*

This neat little MFJ automatic T/R switch senses transmitted RF and switches your antenna from receive to transmit using a relay. It shorts your receiver antenna input to ground to protect your receiver. It also provides an auxiliary contact closure to ground during receive (opened in transmit) for an "On-the-Air" sign or other use.

Instead of using RF sense to switch the antenna, a control line input lets your key/keyer or PTT line switch the antenna.

An adjustable time delay circuit gives you delayed switching. This prevents your antenna from switching between dots and dashes or between syllable and words.

Works on all modes -- CW, AM, SSB, FM and digital modes. Handles 200 Watts SSB PEP. Compact 4Wx2⅝Hx1½D inches.

Has SO-239 coax connectors for antenna, transmitter and receiver. Has control input, auxiliary contact closure to ground, time delay screwdriver adjustment, power jack. Requires 12 VDC or 110 VAC with MFJ-1315, $14.95.

MFJ-30, $9.95, *Golden* Classics of Yesteryear. Book on vintage transmitters/receivers.

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How to Order from MFJ

Call **1-800-647-1800** to order or for your nearest MFJ dealer; **(662) 323-5869** outside continental USA; **FAX** to **(662) 323-6551.**

MAIL ORDERS: Send personal check, bank check or money order to: *MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762.* Include payment for item (s) and shipping charges (see chart). Payment by personal check will be held 10 working days upon receipt of order.

SALES TAX: Sales tax must be added for the states of OHIO and MISSISSIPPI.

CREDIT CARDS: MasterCard Visa, American Express, Discover. Include account number, name of card holder and expiration date.

FOREIGN ORDERS: US Funds ONLY. See ship chart for details. Call for quote.

NO RISK* ORDERING:** Order any product ***"directly" from *MFJ Enterprises, Inc., Starkville, MS* and try it for 30 days. If not totally delighted, we'll cheerfully refund your purchase price (less shipping). No books or software included.

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TECH: (662)323-0549

E-Mail: *mfj@mfjenterprises.com*

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UPS/MAIL Shipping Chart

*Code F items cannot be sent by first class mail. *Foreign orders must call for quote.*

Ship Code	UPS	First Class	Canada	Foreign
A	$7.00	$7.00	$20.00	$50.00
B	10.00	10.00	24.00	60.00
C	12.00	12.00	28.00	70.00
D	14.00	14.00	31.00	90.00
E	16.00	22.00	41.00	125.00
F	25.00	*	44.00	*

MFJ *Sound Card-to-Rig* Interface

Use sound card and rig for all digital modes!

MFJ-1275/MFJ-1275M

$89.95

Ship Code A

New!

Plug this new MFJ-1275 sound card interface between your transceiver and computer and enjoy operating all digital modes.

Everything you need is included -- software, audio cables and power plug.

The MFJ-1275 provides fully automatic operation with audio and push-to-talk control. It matches sound card audio, eliminates ground loops and provides microphone override.

Works with all transceivers with 8-pin round or modular microphone plugs.

Operate PSK-31, packet, APRS, AMTOR, RTTY, SSTV, CW, high speed CW Meteor Scatter and many others. Also use as Contest Voice Keyer and CW Contest Memory Keyer.

Digital Modes or Normal Operation

Choose digital modes or normal transceiver/computer operation with the push of a switch.

Selecting the ON digital mode, all connections are made between your rig and computer for instant digital operation.

In the BYPASS normal mode, your transceiver and computer connections are restored for their normal operation.

Audio Isolation Transformers

Audio isolation transformers and relay eliminate ground loops, audio hum, noise and distortion.

RFI-Proof

Extensive RF suppression and line isolation eliminates RF feedback problems.

Automatic Microphone Override

You can override any digital mode and transmit microphone audio at any time by pressing mic PTT -- great for SSTV and Contest Voice Keyer operation.

More Impressive Features

Serial port -- lets computer control your radio to override and/or interrupt digital transmissions.

VOX Control -- lets you use automatic VOX control when not using computer serial port control.

Level Controls -- for transmitter drive and for receiver-to-sound card drive level. No need to adjust microphone gain or sound card level when you change modes.

Stereo or Mono Audio Input -- A front panel switch selects left, right, or both sound card audio output channels to accommodate various programs.

Off-the-air recording -- for replaying or for use with spectrum analyzer programs.

Monitor switch lets you hear receiver audio when you want it -- a MUST for SSTV and Voice Keyer operation.

Rugged Construction -- All aluminum cabinet and surface-mount construction gives you years of trouble-free service.

Use any Transceiver with 8-pin Mic

Internal jumpers program microphone wiring for any brand or model radio -- no soldering required. Order **MFJ-1275** for 8-pin *round* mic plug. Order **MFJ-1275M** for 8-pin *modular* mic (RJ45) plug.

Everything you need is included

MFJ-1275/MFJ-1275M includes audio cables, power plug and a CD with a collection of the most popular amateur radio software to operate PSK-31, RTTY, SSTV, PACKET, AMTOR, CW, HSCW Meteor Scatter, Contest Voice Keying and other modes. Uses 12 VDC or 110 VAC with optional adapter (**MFJ-1312B, $14.95**).

DSP/Multimode/Radio Control/Sound Card Program

PSK31, SSTV, FAX, RTTY, SITOR, CW Sound Card Software, Rig control over 80 radios and DSP Filter and Analyzer for receive audio . . . Has RS-232 level converter . . . free demo at: http://www.mfjenterprises.com

MFJ presents the first program of its kind written for sound card interfaces and amateur radio. This fully integrated software program is fully supported by MFJ.

PSK: Supports PSK-31, Q and B PSK.

SSTV: 32-bit color, supports all SSTV formats, screen sizes/SSTV parameters are all variable.

FAX: Supports AM/FM. Includes Weather FAX and satellite FAX direct. Supports ICO 267, 288, 352 and 576. RPM 48, 60, 90, 120, 180 and 240. Fax resolution is up to 1810 dpi. FAX features IOC and slant-correction, FAX pictures can be saved, printed or retransmitted.

CW: Features automatic speed tracking, DSP notch and bandpass filters.

RTTY: Supports all standard shifts and speeds. X/Y scope and frequency spectrum display makes tuning RTTY a breeze. Also supports NAVTEX, European SYNOP, Baudot, Sitor-B.

MFJ *RadioCom* requires Pentium/Celeron processor with at least 200 MHz, 64 MB RAM with sound card. Use Win95/98/ME/2000/NT. **MFJ-1296, $129.95.** *RadioCom4* features PSK31, SSTV, FAX/Sat FAX, RTTY, SITOR, DSP audio filters and radio control. **MFJ-1298, $199.95.** *RadioCom5* has all features of *RadioCom4* plus DSP Audio Filter Analyzer, Spectrum Analyzer, Dual Scope Display, Sound Recorder, Time/Frequency Management, Frequency Analyzer, 3D Scanner, Satellite Tracking, and Radio Control for over 80 radios and much more!

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